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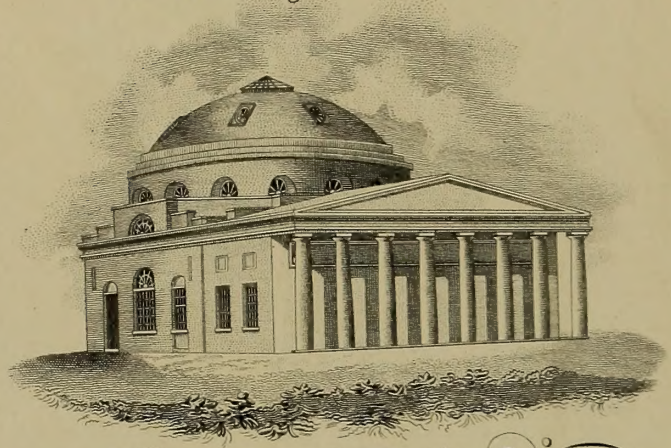

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described on either an Inventory of Dissertations in Jones and Leary were presented to the University of Maryland by the Degrees of Doctor of Medicine and/or Doctor of Physic during the years 1813-1837. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes, individual manuscripts are not in evidence, titles, and/or years. To whatever these values are valid, a "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project came who managed and supervised the tables of contents were: Edward J. Bedder, Manuscript Librarian, Preservation Officer; Mark Mangum Parker, Metadata Management Librarian; Angela Cordrey and Carol Hallquist-Henry, Resources Division; Frank Hendrix, Alan Schum and Megan Wolff, Services Division.

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University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1877 (b)

Author	Title
Mitchell, Alexander R.	Digestion [1] (stained)
Miller, Irving	Intermittent Fever
Hill, Henry F.	Acute Articular Rheumatism
Osburn, Howard	Report of Six Cases
Ward, Thomas J.	Croup
Smith, John T.	Acute Rheumatism
Turner, L. Ignatius	Laws of Hygiene and Their Practical Applications
Lowe, A. C.	Report of Six Cases
Wilson, Luther B.	Proximate Causes of Phthisis
Tydings, Oliver	Epilepsy
Williams, T. B.	Terebenthina
Coplin, David C.	Pneumonitis
Billingham, Walter A.	Influenza
Bobbits, Emmett	Typhoid Fever
Chaplain, Louis	Scarlatina

[1] Title page illegible

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1877 (b)

Mitchell, Alexander R.	Digestion (Title page illegible)	19p.
Miller, Irving	Intermittent Fever	25p.
Hill, Henry F.	Acute Articular Rheumatism (1)	14p.
Osburn, Howard	Report of Six Cases	67p.
Ward, Thomas J.	Croup (2)	32p.
Smith, John T.	Acute Rheumatism	37p.
Turner, L. Ignatius	Laws of Hygiene and Their Practical Applications	50p.
Lowe, A. C.	Report of Six Cases	22p.
Wilson, Luther B.	Proximate Causes of Phthisis	28p.
Tydings, ~~O.~~ Oliver	Epilepsy	31p.
Williams, T. B.	Terebenthina	30p.
Coplin, ~~D.~~ David C.	Pneumonitis	52p.
Billingham, ~~W.~~ Walter A.	Influenza	19p.
Bobbits, ~~E.~~ Emmett H.	Typhoid Fever	28p.
Chaplain, ~~L.~~ Louis	Scarlatina	31p.

(1) Noteworthy calligraphy on title page
(2) Noteworthy calligraphy on title page

An

Inaugural Essay

on

Question,

respectfully submitted to

the examination of

[illegible] Trustees and Faculty

of Physic of the

University of Maryland

for the

Degree of Doctor of Medicine

By

Charles E. Mitchell,

Baltimore Md.

38

May 1[illegible]

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Digestion

It is to be presumed that I like my predecessors have experienced not a little trouble and felt some degree of hesitancy in making a selection of a subject, upon which to write my inaugural dissertation, and in selecting the above feel deeply sensible of my incompetency to do justice or even approximate justice to it, but in accordance with a time-honored, an old, established rule, will endeavor to convey some faint idea of the modern acceptation of the subject. It is a theme which has ably called forth

the intellectual force of some of our most enlightened minds of ancient and modern times, one in which reasoning & contemplation have had a wide field for speculation, & one in which the minds of some of our brightest luminaries have been directed, with the most indefatigable energy. Hypotheses innumerable have been advanced, & suppose there exists in the whole curriculum of the "Healing art," no subject upon which more theorizing has been done. Some of these theories were seemingly quite rational, but, alas, were overthrown & supplanted by those more tenable,

2) Function of the various parts of the digestive Organs, secondly the functions assigned to each organ and 3rdly the theories and laws of digestion. The anatomical arrangement of the digestive system is as follows: we first have the mouth with its appendages, then follows successively the Oesophagus, Stomach, small and large intestine. The first important step in the intricate process of digestion is that by which the food after its reception in the mouth and coming in contact with the buccal secretion, is assigned to the action of the teeth, by which the food is gnaw'd or cut, it requires a sufficient by soft and pulpy consistency to be conveyed to the stomach, thus to be

acted upon the Gastric juice. Several important organs are situated in this active process is the Oesophagus; but before going further, (2) will state what these are situated at the posterior part of the mouth cavity, have made taking in different directions, one upward and towards the nose, the second downward and in front to the trachea, the third downward and backward with the Oesophagus, the soft palate, uvula, tonsils and tongue in the passage from the mouth to the fauces. The Oesophagus is a membranous canal, extending from the posterior part of the pharynx to the cardiac orifice of stomach, and is situated between the

Stomach and vertical column, is about
eighteen inches in length, its outer coat is composed of the layers of muscular
fibres, the external, is thick and strong and
runs longitudinally, the internal, is thick and
firm, running circular directions
is lined by mucous membrane interposed
in which are numerous follicles, secrete
a mucous or albuminous fluid, which
very materially aids digestion. The
food does not take by virtue of its own
specific gravity, but by the peristaltic
action of the muscular coat of the
canal. The pylorus and cardiac orifices
important organs in the complete process
of digestion, in the Stomach, which
is a non auto-muscular or cavernous

walls, between the epigastrium and upper compartment of the abdomen, in the hypochondriac and part of the right hypochondriac region, which has been opening into the left or cardiac, which receives the termination of the oesophagus and the right or pyloric orifice which is at the commencement of the duodenum. It has two uniting covering form a curtain at the pylorus composed of muscular and fibro-membranous tissue to prevent the passage of food and gas into the membranous, which are well supplied with vessels and nerves. The outer membrane is a reflection of the peritoneum, the next is a fibrous membrane, the fibres running in an oblique, circular

and longitudinal direction and the last or mucous coat, covers the whole interior surface of the stomach, which during infancy is of a pale slate color and afterwards becomes orange or a pink, it is filled with vessels which secrete an abundant acid fluid. The peritoneal coat is designed to strengthen the organ, & aids in securing other organs in their proper relations, the 3rd or muscular coat plays an important part in digestion, by the action of the circular & longitudinal fibres, the stomach is enabled to adapt itself to the quantity of matter contained therein, and by their contracted action they

contents into direct contact with the gastric juice. The 3rd or mucous coat is filled with vessels, together with a great number of glands or follicles. There is a matter of dispute among physiologists as to whether the glands secrete the gastric juice, or only mucus, the latter being in their view generally accepted. The stomach is supplied by the Coronary Artery, pyloric branch of the Hepatic and arteries of the Spleen, the nerves supplying this organ are the right and left pneumogastric and branches of the Sympathetic.

The next organs concerned in digestion are the

testines, which are divided into two portions. The Duodenum is more directly concerned in the process of digestion than the other division of the intestinal tract and with the stomach & the Gallbladder it is circumscribed in structure to the extent to be imposed upon these make the duodenum in the most important, because the chyme that is formed in taken up by the blood-vessels and distributed to every part of the system. The Duodenum is so called by the Greeks on the beginning in length to 12 finger-breadths. Before speaking of the other organs of digestion we will make a few remarks relative to the secretions of the

[illegible] cecum, jejunum, ileum, caecum, colon and rectum, it is not necessary to devote much time to the description of the above, as most of them in diseases is only a secondary one, and 1st the jejunum & ileum, the former derived from the [illegible] [illegible] in the fact of its being always [illegible] supply, in contrast from the (Ileum), in structure they are analogous to the preceding mentioned and like them lined with [illegible] [illegible] the [illegible] [illegible] we arrive at the colon, where they are also [illegible] abscess, and the contents of the bowels assume the [illegible] of fæces, the [illegible]

[illegible] is marked by the [illegible] valve, which prevents the contents of the caecum from regurgitating into the ileum. The course of the colon is upward, then transverse and downwards, its descent forms the sigmoid flexure which terminates in the rectum, where the fecal contents take the characteristic form. The organs remain to be described, viz: the pancreas and liver, the latter of which constitutes one of the most important accessories to digestion. In the larger [illegible] the abdominal cavity, and is situated in the right hypochondriac region, [illegible]

of the Epiploon is ruptured and the epiploon, is divided into three lobes, but exists several depressions and fissures besides the deep fissure which seems to separate it to attach it to different organs, and we divide it in the proper position. The Hepatic duct or the common stem of the Liver unites with the the Cystic duct proceeding from the Gall bladder situated in the right lobe of the Liver, the Ductus communis Choledochus is formed by the union of the Hepatic & Cystic duct and empties into the duodenum. The Pancreas is a gland situated behind the stomach and extends from the

gland, in a similar manner to the Salivary Glands, its secretory duct empties into the duodenum, the function of this gland is said to be analogous to that of the liver. I have intentionally made a great many omissions in my description of the digestive apparatus; since a more detailed account would embrace more time than I can conveniently devote to the matter (sufficiently complex) I think it should be therefore offensive. We will now consider the laws of digestion and its functions commencing with, I shall first say a few words about Hunger and its causes. Numerous views have

been produced with regard to the
other causes, some Physiologists sup-
posing it to be irritation of the nerves
of the stomach brought about by the
secretion of the Gastric juice, when the
organ is empty, there is no secretion
of the Gastric juice consequently the
secretion is not kept up, which
again thought that the mere emp-
tiness of the stomach produced
hunger by the contact of its sides
producing friction, but when
many arguments upon a subject
since there is always present in
the stomach a certain quantity of
air which prevents the contact
of its sides. It is however awe

labored, must take place, whenever a
ration exists between the demand and the
demand of the system, for nutriment
the greater the waste, the more rapid also,
the more urgent is the appetite to
supply the demand. As the system
in consequence of which the appetite
is known, when the system needs
repair, and the nerves interpret
when this waste has been effected,
The salivary secretion of the
mouth, also of course which the food
undergoes after its passage the
Stomach and here is becoming
transformed into a constituent
element of the body. In which the
food is received, into the Stomach

it is subjected to the action of the gastric juice which exerts a solvent action upon it, and eventually converts it into a soft pulpy mass called Chyme, which is forced, with the duodenum where it comes in contact with the bile and pancreatic juice, thus emulsifying it into a milk like fluid called Chyle, in which a large proportion of substance which is the nourishment, the Chyle is absorbed by the vessels distributed throughout the mucous membrane of the intestines, these are termed lacteals which converge and form a large trunk, termed

Thoracic duct, a large canal extending from the second lumbar vertebra to the root of the neck where it empty, its office is to conduct the mass of prepared chyle into the blood. During sleep it receives the bile, pancreatic juice, and the contents of the duodenum which have passed from the duodenum into the remainder of the intestinal track receiving new addition of waste matter in its passage and is finally expressed in the nature of fæces.

Having given the function of the digestive organs, I will now give some of the most important

may be properly considered, the act of chyme is the necessary mixture of the juice and the saliva with every particle of food upon which it is to act. The food is in a uniform temperature which is at about 98° Fah, and the 3rd the agitation of the food in the stomach. Having given the conditions necessary we now proceed to explain the manner in which they are performed. The food of course is the natural & most appropriate stimulus of the secretory nerves of the stomach, and the moment it comes in contact with the mucous membrane a action becomes increased, the blood vessels become distended and the gastric juice is poured out, and by the

action of the muscular fibre of the stomach & the crude admixture of the food with the gastric juice is brought about.

The 3rd — the influence of heat also was ascertained in the following manner: equal quantities of gastric juice were put in vial with equal quantities of masticated food, the one exposed to a temp of 98°, the other to the open air, after several hours had elapsed, the meat in the cold vial was but little changed, while that in the warm vial was nearly digested. The mode the influence of heat of digestion has been explained in a previous page of this thesis.

Having now treated of the Anatomy of the digestive system

assigned to each organ its office, together with some other laws by which they are governed. I would like in conclusion, to present the most apparent course by which the regular and healthy performance of their functions may be maintained, but time admonishes me to close.

Respectfully Submitted

A. W. Mitchell

Intermittent Fever.

To the Faculty of the "University of Maryland."

Baltimore, Md. Session 76-77.

Irving Miller.

Intermittent Fever.

In accordance with the statutes of the "Maryland University," I present to the worthy Dean a thesis, which has been, to the best of my ability, compiled from the lectures on the subject by our respected Professors, and various text books that have been placed in my hands to study. If I have followed text books too closely, it is because I do not possess the experience to enable me to give in my own language the ideas I wish to convey. Many plausible hypotheses have been made, as to the germ producing agent of this affection, but the majority of the theories have been proved to be nothing more than mere hypotheses, and have never been satisfactorily settled in the minds of the medical profession.

This disease is the mildest of the

malarial fevers, and is characterized by febrile paroxysms recurring at stated periods with the absence of fever between the paroxysms. The intermission is the most distinctive feature of this affection, hence its name. It is commonly known as "fever and ague", "chill and fever", and various provincial names have been given it from the locality in which it occurs. In the forms that are mostly met with it is not attended with any danger to life, but it may present itself as the most dangerous of maladies. Many years back before quinia was used as the main remedy in the treatment of intermittent fever it often proved fatal, and it was this malady that caused Oliver Cromwell's death.

Anatomical lesions. As it is very seldom that intermittent fever ever proves fatal, directly, the anatomical peculiarities are not known. The enlarged and softened spleen may be considered a lesion, but this pathological

condition may arise often the case, be due to some intercurrent affection. The clinical history is divisible into two periods, the paroxysm, and apyrexia or intermission. The attacks are generally sudden, and without any premonitory symptoms; but, in a certain proportion of cases, there are certain preliminary symptoms which are indicative, but not necessarily distinctive of the disease. A desposition to make any exertion, yawning, headache, and general malaise would in most cases forewarn the patient of an impending paroxysm, especially if he has suffered previously with the affection. The paroxysm when fully formed consists of three distinct stages, viz., cold, hot, and sweating.

The first or cold stage commences with a feeling of chilliness, which feeling may commence in the loins, and extend over the back and extremities. Muscular rigors may, or may

not accompany this stage. The eyes water and are congested, the hair bristles, or stands out, and the skin presents the appearance known as gooseskin. The prehensile become bluish, or livid, and a bluish tinge is often observed around the roots of the nails. The body shakes, and in some cases violently. The pulse is usually accelerated, but small and feeble. He tries in vain to get warm, and his whole appearance is one of anxiety and discomfort. Praecordial pain, and oppression may exist. This stage, although presenting the appearance of cold, is in reality an increase of temperature. The extremities may be lowered in heat, but if the thermometer be placed under the axilla, it will indicate a rise of temperature, this being due to congestion of the internal organs. The rise of temperature begins prior to the paroxysm.

Gastralgia, or gastric irritability may take the place of this stage. Drowsiness or stupor producing

a condition strongly resembling hysterical coma. The coma may be produced as is seen in a form of the diseases known as pernicious intermittent fever. These last phenomena are some of the morbid conditions that present themselves in occasional cases. The cold stage is of variable duration, and may last from a few minutes to as many hours. From this stage of chilliness, the disease gradually passes into the next or hot stage. Flushes of heat are felt over the face, the breath begins to be perceptibly warmer to the patient; and he begins to feel more comfortable; but soon he is tossing in a high fever. This stage is introduced with more or less intense febrile movements. The pulse is accelerated and full, the face flushed. cephalalgia continues, or may be more intense. Precordial pain may be diminished or may disappear. If the temperature be now taken an increase of heat is observed, sometimes as high as 105° to 107° Fah. Thirst is great,

This stage lasts for a variable length of time, reaching its maximum intensity gradually, and passes into the third or sweating stage. The skin becomes moist and soft, a perspiration commences, as a rule, on the face, and continues until the whole body is moistened. Heat, cephalalgia, thirst, and restlessness gradually abate. The patient is more comfortable, and less irritable; generally falling into a quiet and refreshing sleep. The paroxysms close by crisis, and the sweating stage is considered to be the end of the paroxysm. The urine when cold, deposits the brick dust sediment. Urea, uric acid, and the chlorides of the urine are increased. Albumen is not unfrequently found in the urine. Haematuria occasionally exists. Neuralgia is often caused by malarial poisoning, and, if so, will be promptly relieved by anti-periodic remedies. Colitis, or dysentery of the most

rudimentary kind may follow as a sequel of intermittent fever, especially in the same forms that occur in the tropics. Emaciation is inevitable if the disease has been of long duration.

The apyrexia is the space of time between two successive paroxysms; and from the beginning of one paroxysm to the commencement of the next, constitutes the interval, in order that it may be distinguished from the apyrexia or intermission. The divisions into types or varieties are made by the duration of the intermissions. Each variety, says Flint, observes a law of periodicity in the succession of paroxysms - a wonderful fact belonging among the pathological mysteries of which our present knowledge affords no explanation.

The types met with most frequently are the quotidian, tertian, and quartan. The quintan, sextan, septan, and octan are other forms that are recognized

but seldom occur. The most common of the simple types are the quotidian, and tertian. The quartan is comparatively rare as may be seen by the following report. Out of 98.237 cases reported by the Surgeon General U. S. Army only 1.757 were of the quartan type. The quotidian and tertian varieties occur in inverse proportion, at some seasons the quotidian will prevail, at others the tertian. Of the 98.237 cases reported, the quotidian type was greatest, 51.623 being of this variety, while 44.857 were of the tertian form. In the quotidian type the paroxysm recurs daily, or at an interval of twenty-four hours. In the tertian the interval is forty-eight hours, and in the quartan seventy-two. The paroxysms of any type may be double, e.g. A patient may be suffering with intermittent fever of the quotidian form, the paroxysm recurring in the morning at regular intervals, in the mean time he may

be subject to paroxysms of the same kind recurring at regular intervals, but in the evening. Thus the patient would be subject to two paroxysms a day, and this would constitute a double quotidian. The paroxysms of the quotidian and tertian types occur generally in the morning, and at, or near the same hour each day. If the paroxysms of any type recur at an earlier hour each day the disease is said to be anticipating, and if they recur at a later hour in the day it is retarding. When the malady assumes the retarding form it has nearly run its course, and will as a rule soon end. The paroxysms occur during the day, and seldom at night. The effects during the intermission are varied, and seldom do the ailments of different cases agree. Some may be very much prostrated, while others will complain only of slight debility without any impairment of the digestive powers. Prostration is greatest in the tertian type, and

as a rule all the stages are more aggravated in this form.
The spleen may be enlarged, and in some cases
sufficiently so to be readily felt through the abdominal
walls, constituting what is commonly known as
"ague cake." This great enlargement of the spleen is not
seen in all cases, but is rather of infrequent occurrence
Anaemia will be a morbid state of the system if the
disease is of long duration. The malarial cachexia
is characterized by a sallow, yellowish tint of the skin
with pallor of the face. In some cases the malarial
poison remains in a latent state; presenting itself in
irregular and not fully formed paroxysms; this is colloquially
termed "dumb ague". The duration of intermittent
fever is indefinite. It may disappear spontaneously,
but may continue for an indefinite period of time.

Causation. The term malaria is applied to the
morbific agent which is supposed to cause the disease,

The production of this morbific agent is supposed by some to be due to vegetable decomposition and by an early Italian writer was named marsh miasm. Dr. Salisbury advanced the theory that intermittent fever was caused by the introduction of into the system, by means of air, food, or water; of cells or spores which emanated from certain species of algoid plants. This plant is classified among the family known as Palmellae, which are the lowest known organism of the vegetable kingdom. To these low forms of vegetable organisms he applied the generic name Gemiasma, which means earth miasm. His theory has not been sufficiently verified to render it stable. Marsh miasm is not altogether due to vegetable decomposition, for cases, repeatedly occur of intermittent fever that could not possibly have been caused by this.

The nearer we approach the Tropics

or ocean coast, so does intermittent fever become more common and virulent. Freshly dug earth as the building of rail roads, canals, and laying of foundations for houses are known to produce, or give rise to intermittent fever in districts where previously it was unknown. Stagnant ponds of water have been known to produce severe cases of intermittent fever. Large rains, shutes of running water, tracks of wood-land, mountains, and elevations of any kind serve as barriers against the transportation of the malarial poison. The poison may be carried unknown distances by currents of atmosphere, and thus may be explained the cause of its appearance in previously healthy districts, where no other cause can be assignable. The disease seldom occurs at high elevations, but increases in frequency and severity as we descend to the lowlands. It is never developed in a temperature

below 32° F., and is seldom produced under 60°. Rank growths of vegetation seem to serve as a productive agent. The disease is of most frequent occurrence in Autumn and Spring, while it is not so common in the Summer months, ~~but~~ is of rare occurrence in the Winter. Persons who sleep in the upper stories of buildings may be exempt, while those who dwell in damp and dark cellars are great sufferers. The period of incubation varies, and a person once affected by the poison is always liable to a subsequent attack. Trousseau says that the liability to relapses is to be regarded as denoting an acquired malarious diathesis.

Diagnosis. The diagnosis of intermittent fever can be determined by its recurring at regular intervals; and the history of previous exposure in a malarious region would lead to a suspicion of the disease. The type can only be determined by the intermission. The paroxysms

f intermittent fever can be distinguished from those of tuberculosis by recurring at regular intervals. Gallstones and lithotrity produce paroxysms sometimes similar to intermittent fever, but the previous history would settle the point. Some difficulty will be offered if the type is latent, but anti-periodic remedies properly administered will clear up the doubt.

Prognosis. The prognosis is almost invariably favorable, for it is very seldom, indeed, that intermittent fever proves fatal in itself. It may pass into the pernicious form, and thus become a grave malady. Simple intermittent fever if long continued will produce anaemia, or may lead to anasarca. It was once supposed to afford protection against the development of tuberculosis, but such theory has been exploded. The greatest danger is the liability to relapse, and its recurrence with other affections.

Treatment. The treatment is divided into two different stages, viz. that during the paroxysm, and that to prevent the recurrence. An abortive treatment can be employed in the case of an impending or expected paroxysm. In such instances a full dose of opium will often have the most happy effects in mitigating the severity of a paroxysm. During the cold stage, the patient should be wrapped in blankets, and bottles of warm water placed to the feet. In the hot stage, small quantities of ice may be allowed the patient; cool acidulated drinks, and effervescing draughts. The head can be bathed in some cooling spirit lotion. The sweating stage requires little or no treatment. The ice should be withdrawn, and the body prevented from exposure to draughts of cold air. If perspiration is profuse, the patient may be rendered more comfortable by wiping the body with a towel. The treatment after

the paroxysm should be such as to prevent the recurrence, for this is the most important part. The drug that possesses almost a specific influence in this malady is cinchona and its derivative salts. The cinchona tree is a native of South America, and inhabits a narrow belt of the Andes range. The bark is the officinal part, and is collected from the months of September to November inclusive. The properties of cinchona were vaguely known to the natives, for they knew it was possessed of certain powers in various malarial affections. The Jesuit missionaries were among the first to bring it most forcibly before the medical world in the treatment of malarial fevers, and for a long time the powdered cinchona bark was imported under the name of "Jesuit powder." The most important of its alkaloids are quinia, and cinchonia. The most eligible preparation of these is the sulpate of

of Quinia. The best time for the administration of quinia is immediately at the close of the paroxysm, for at this time the malarial poison seems to be to a certain extent eliminated from the system, and the quantity of the drug required at this time to bring the system under its influence is probably a little less. It has been the practice, among a number of the leading members of the profession, to give quinia in large doses, in order, that the system could be rapidly brought under its influences. But lately the most flattering effects have been obtained by administering small doses at short intervals, which is by far the most preferable and safe. Permanent deafness and blindness have been known to result from taking quinia in immodicinal excesses. The dose should be from four to five grains at a time repeated until about twenty grains have been taken during the intermission

If some persons should make a decided objection to the administration of quinia per mouth, on account of bitterness, or an idiosyncrasy, it should be given by hypodermic injection, or by enema. If it is given hypodermically the Hydro-bromide of quinia should be used, as this is the most eligible preparation for this mode of administering. It should be given with the hypodermic syringe in doses ranging from five to ten minims. The effects when given hypodermically are more rapid, and this form possesses the great advantage of being economical, for the same effects are produced with a much smaller quantity. The difficulty in administering quinia to young children often can be obviated in giving it by enema, as in this way it is most readily absorbed from the intestines. Thin starch water may be used to hold the quinia in solution when given by enema.

In giving quinia by the stomach, it should be given in solution to produce its full effects, and should always be rendered soluble by the addition of a small quantity of some acid such as tartaric, or aromatic sulphuric. Pills are a very eligible mode of administration, and should always be freshly prepared. After producing a stoppage of the paroxysm, the dose should be reduced and not given in doses over one or two grains twice a day. If some idiosyncrasy prevents the use of quinia, it should be substituted by some other anti periodic. The remedy that ranks next in importance is arsenic. This drug possesses great therapeutic power in the treatment of intermittent fever, but it is inferior to quinia. Arsenic should be used where tolerance of quinia is impossible, or where it has been administered for a long time, and has seemingly lost its power over malarial poisons. Arsenic

is used alternatively with quinia as in this manner. The paroxysm being stopped by quinia, and not desiring to continue the use of it as a preventive against the return, which generally happens in about two weeks, we would then employ arsenic. The most reliable preparation of arsenic in the treatment of this disease is Fowlers Solution, which should be given in doses from ii to iii gtts, gradually decreasing so as to avoid the unpleasant results of slow arsenical poisoning. If any puffiness is noticed under the eyes the drug should be withdrawn for a time. As anaemia is often produced by the long continuance of intermittent fever, it is always advisable to combine some preparation of iron with quinia, A very efficacious preparation for this purpose is Ferri et Quiniae Citras given in doses of from two to five grains, The Tinctura Cinchonae Composita is an elegant tonic, and should be given in one and two

drachm doses. Preparatory treatment is seldom required, The primae viae should be cleared by a mild laxative, or a dose of some preparation of mercury may be given before commencing the administration of antiperiodics. Salicylic acid is recommended in doses from five to ten grains. ~~Paper~~ Ferrocyanide Ferri in scruple doses has been used with some success by Prof. Hammond. Indeed, the drugs that have been tried are vast in numbers, but all are inferior to cinchona or its salts. The high price, and fear once entertained of failure of the supply was the principal hinderance to its exclusive use. If other salts of cinchona are used instead of the Sulphate of Quinia they should be administered in one third larger doses. The Sulphate of Cinchonia is the most reliable of the less efficient salts, and is prescribed in doses from eight to thirty grains, Prof. Merrill recommended and used Chloroform as an abortive

to a paroxysm. He gave it in one dram doses. The hypodermic injection of morphia is the most safe and efficient remedy as an abortive. As a rule the paroxysms are never sufficiently severe to require an application of this treatment. The prophylactic treatment would be to pay good attention to the laws of hygiene when in a malarious country, and prevent exposure to the night atmosphere, also avoid going out early in the morning for at this time the strength & ability to resist the malarial poison is weakest. Sleeping in the upper stories of houses seems to aid in preventing the reception into the system of the malarial poison.

Quinia in small doses is in a great degree very efficient as a prophylactic. Wood records the results of a series of experiments with quinia as a preventive: viz., A battery of one hundred and thirty-five men, quartered at Jubbulpore, in the same barracks with an infantry regiment. To the artillerists were given three grains of quinia every other day; the infantry

were not allowed any. The sequel of the experiment was while three hundred out of the five hundred men of the regiment were sick with malarial diseases, at no time was more than four per cent. of the battery affected.
The Eucalyptus Globulus, a tree native of some parts of the tropical world, has lately been brought into notice, and, no doubt, has great value as a preventive. The tree possesses a most extraordinary power for absorbing water. Marshes can be rendered dry by planting a sufficient number of these trees. Australia is in a great measure, it is said, exempt from severe malarial diseases because this tree abounds in its borders and acts as a preventive. The tree flourishes in temperate climates, and if taken care of during the winter months can be cultivated in this section. Persons visiting malarial districts who have never suffered from malarial affections are more liable to have attacks than the inhabitants

of said regions. After they have become acclimated they are in like manner less troubled with the disease. Prof. Polli claims that the sulphites are prophylactic, and for this purpose used the hypo-sulphites of soda. In enlarged spleen due to intermittent fever, a tonic possessing cinchonia in some form should be given. Huxhams Tr. cinchona is a very eligible and agreeable form for this purpose. A belladonna plaster may be applied over the enlarged organ. Some physicians claim great virtues for an ointment made of the biniodide of mercury. Iodide potassium should be given. Moderate exercise will promote the return of the enlarged organ to its normal size. In anaemia the chalybeate tonics are of use, and should be conjoined with the treatment in all cases. If the patient suffers with night sweats after the stoppage of the paroxysms the aromatic sulphuric acid will generally be

efficient.

Respectfully

Irving Miller.

Baltimore Maryland - 1877.

Inaugural Thesis

on

Acute Articular Rheumatism

Submitted to the Examination

of the

Board, Regents and Faculty

of

Physic

of the

University of Maryland

for the Degree of

Doctor of Medicine,

by

Henry F. Hill,

of

Russellville, Alabama

Session - 1876 - 77.

[illegible]

[illegible] is a [illegible] disease, [illegible] expressions, situated in the joints, and fibrous tissue elsewhere. The term rheumatism is [illegible] applied to [illegible] general, vague [illegible] pains or infirmities.

Rheumatism is divided into [illegible] classes, namely acute or articular and subacute or chronic, and lastly, muscular rheumatism.

We will notice only acute or articular rheumatism. As the name implies, articular rheumatism is located in the articulations [illegible].

[illegible] effusion; and seldom terminates in suppuration. The only anatomical change that is [illegible] in cases of acute articular rheumatism is the notable increase of the amount of fibrine contained in the blood. [illegible] unusual acidity of the blood. The acidity of the blood is supposed to be due to the presence of lactic acid, which acid is formed in the lungs

[illegible]

[illegible]

[illegible]

[illegible]

to find the lungs will take the sugar, instead of air, it be no longer this organ, which is altogether a [illegible]

With the knowledge of the facts, that in this disease the pilous bile [illegible] and that the blood when subjected to an analysis is found to be [illegible]-acid, [illegible] to be [illegible], but [illegible]

[illegible]

about these conditions are as yet matters of speculation.

Clinical History. Pain often severe [illegible] is usually ushered in suddenly, perhaps by a chill, or slightly [illegible], followed by fever, and pain in one or more joints. The affected joint is red, hot, [illegible] and extremely painful to the touch. The pain is so intensely [illegible] that patient [illegible] is perfectly quiet, and allows no one to touch or move him in the slightest. He dreads to see the physician, lest he should touch the affected part. The jarring caused by walking, the floor is

[illegible]
[illegible] in my sudden, and [illegible]
the scalding and pain [illegible] to
affected just equally [illegible].
The temperature is notably increased, rising, as stated by Dr. Sidney Ringer of London, to 102° & 110°.
To 110° is a decidedly high [illegible]
certainly speaks the temperature [illegible]
[illegible] patient that I have [illegible],
though I would not attempt to
refute the statement of Dr. Ringer;
for my experience has been too
limited. As stated above, the
attack is generally announced by
a chill, but by no means is this
always the case, for in some cases,

[illegible] the [illegible] the attack is preceded by general malaise—the patient feeling badly for several days previous to the attack. Hence the name rheumatic fever, instead of acute rheumatism.

The joints affected are for the most part those most superficial; or those covered by the least muscular tissue. The disease is however by no means partial in its selections; for almost all the joints of the [illegible] are, in some cases affected.

The order in which the joints are affected is as follows, knee, ankle, [illegible], and the hip, then, [illegible] joints, first [illegible] and [illegible]

[illegible] joints. [illegible] the law of [illegible] disease is [illegible] according to the number of joints affected, whether simultaneously, or successively, the order in which they are attacked, etc.; yet, the two manifestations are governed by an important fixed principle, viz., the law of [illegible]. Corresponding joints are often affected together, and when this is not the case, the different joints affected are [illegible] on the [illegible] side of the body, joints on the left side [illegible] in succession; viz., the knee and elbow, wrist and ankle, [illegible] and shoulder, are affected in

combination. My attention has not been directed to this fact, in my practice. I have noticed the knee and elbow are peculiarly susceptible to the morbid product. The course duration is very variable, the extremes being from five to forty five days; the first being the minimum, the last, the maximum duration.

Rheumatism has a marked tendency to affect the lining and investing membranes of the heart especially the pericardium. The valves of the left side are more often, than any other portion affected. This is not surprising when we consider the anatomical structure of these part;

and the remarkable metastasis of
bone tissue, both from inflammation.
When the joint is involved, it
constitutes the most tenacious form, so
that although the case may not remain
in a crippled condition.

Diagnosis. This is not difficult,
if we only bear in mind the clinical
history. The signs of particular
diagnostic value, the suddenness
of the attack, with violent pains, heat,
swelling and redness, in some one
more of the larger joints; pain in-
creased on pressure, rapid elevation
of temperature rising as high as 102°
or 104° in the first twenty four or

ly—if bows. Profuse perspiration, which emits a disagreeably acid odor, this disagreeable odor is so marked that the whole room is infected. From this circumstance alone the physician can often make his diagnosis.

Pain and swelling change suddenly from one joint to another; leaving the joint first affected comparatively at ease. With all the above diagnostic points, one would scarcely fail to recognize the affection.

Prognosis—This is always favorable, so far as immediate danger is concerned unless the heart becomes involved; then the prognosis is much

more serious, both in regard to present and future dangers. If now the bowels is obstructive, the future welfare of the patient must necessarily be, to some extent impaired. Pain and that of more or less severity, may be predicted.

Treatment. There is no disease in which a greater number or variety of remedies have been resorted to in recommendation some potent for good and others equally potent for evil. Among the numerous remedies that have been used in the treatment of this disease may be mentioned bloodletting, mercury, calomel, for purging and a host of others, which we now regard, as not only useless, but absolutely injurious. The remedies which we now

are comparatively few, among which may be mentioned in order as they rank in importance, Decoction of Tar, in half drachm doses, until the urine becomes alkaline, & the symptoms are ameliorated. Salicylic Acid, in five or ten grain doses, is recommended by some as being very efficient.

From reading the literature as contained in recent Medical journals & the use of Salicylic Acid treatment in Acute Rheumatism, one would suppose it a specific. Notwithstanding the high commendation which it has received, clinical observations have not borne out these reports. Next in order of importance is Iodide of Sodium.

Prof. Dr. J. Lenard says he [illegible] good effect, unmistakably [illegible]."

If it [illegible] be kept in view as a [illegible] rule, we have stood the test of clinical observation, so well as [illegible] Rationale [illegible]. At the present day it is used to the exclusion of almost all others.

Its use does not contraindicate the employment of other means of relief.

Counterirritation in some cases produces markedly beneficial results. Blistering, Croton oil and Aconite Liniment and other rubefacients are of great value. Dover's Powder at night, in order to give a good night's rest is of prime importance. Heart complications call for least twice; among which

[illegible] is [illegible] [illegible].

If the above treatment is vigorously carried out, there is but little danger of the heart becoming involved, especially if the case is seen in its inefficiency.

C. F. Cox.

Baltimore Feb. 12th 1877.

A
Report
of
"Six Cases"
In Lieu of a Thesis
Submitted to the Examination
of the
Provost, Regents & Faculty of
Physic of the
University of Maryland
For the Degree
of
Doctor of Medicine
By
Edward Colton
of
Virginia
1877.

I include in the six following cases from my "Record Book" just as I had taken them.

Case, 1st "Pleuro Pneumonitis"

Case, 2nd "Pleuro Pneumonitis"

Case, 3rd "Pleuritis of the left side"

Case, 4th "Pleuritis of the right side"

Case, 5th "Burn of the fourth degree"

Case, 6th "General Erysipelas"

Case the 1st

St. Boseke Naro - Narra, Thomas Bell,
[illegible] - Sailor, Aline, Pneumonitis,
He was admitted to the University
Hospital, March 1st 1876. [illegible]
was taken sick five days ago.
Complains of pain in both sides;
has a quick pulse, and hurried re-
spiration; there is "dullness" on "per-
cussion" at the lower lobe of each
lung; by "auscultation" there is absence
of the "vesicular murmur" with increased
"vocal fremitus" — Diagnosis, "Pneu-
monitis, double" — Treatment — a
poultice to each side, Sul. Pri. i
in ℥ss. dose, until reduced water,
Sul. Morphia, ½ sedative, to be repeated
and as much liquid as will

Mar. 2nd P.M. [illegible] Temp. 101, [illegible]
[illegible] but little [illegible]
Sol. Quinine vare de [illegible]
[illegible]

Mar. 3rd 9 A.M. Temp. 101°, Pulse 92 [illegible]
Complains of pain in the side. Has a
hack. cough, with but little [illegible]
[illegible] 5 P.M. Temp. 104¾ Pulse 82, Resp. 42
Pt not so well - Treat the same, with
Sol. Quinine gr. X at bed-time —

Mar. 4th 9 A.M. Temp. 99 4/10; Pulse 88; Resp. 44
Pt somewhat better, but suffers from
anorexia. Perspires freely all the while.
4 P.M. Temp. 102°; Pulse 90 Resp. [illegible]
Treatment is as before.

Mar. 5th 9 A.M. Temp. 101½ Pulse 92 Resp. 52
Pt. passing [illegible] rather, but [illegible]
[illegible] anorexia, [illegible]

[illegible] Sul. Quinia & [illegible]

4.30 P.M. Temp't 103 3/4; Pulse [illegible]

additional 5 grs. Sul. Quinia [illegible]

Retime last night.

Mar. 6th 9.30 A.M. Temp't [illegible]; Pulse [illegible]; Resp't [illegible]

Still complains of his left side. He has

not been to "stool" for two days.

4.30 P.M. Temp't 103 1/2; Pulse, 82; Resp't 36. His

bowels are still constipated, Treat. the same

Mar. 7th 9.30 A.M. Temp't 100 1/4; Pulse 80, Resp't 40

His pulse is very compressible; Still perspires freely - Treat. the same -

4.30 P.M. Temp't [illegible]; Pulse [illegible], Resp't 40,

Says he feels about the same, Bowels

are still constipated. He has eaten more

today, than usual. Treat. the same

Mar. 8th, 9.30 A.M. Temp't 100 1/2; Pulse [illegible], Resp't 34

[illegible]

1.30 P.M. Temp't. 103½; [illegible]
His respiration [illegible] but not
laborious. Say [illegible]
Mar. 9th, 8.30 A.M. Temp't. 100½; Pulse [illegible]; Resp. [illegible]
He had a "stool" once this morning. Has
[illegible] sick stomach since
yesterday, [illegible] little food.
Taken the same, with "Milk" and "Tea", alternating, [illegible]
5.30 P.M. Temp't. 101¾; Pulse 92; Resp't 28
His sick stomach has been relieved,
but complains of "Anorexia".
Mar. 10th, 9 A.M. Temp't. 97¾; Pulse [illegible]; Resp't [illegible]
He [illegible] [illegible]
3 P.M. Temp't. 101¾; Pulse 92; Resp't [illegible]
He not so well, his bowels are constipated. Treatment was changed at 12 M.
to [illegible] to die

Mar. 11th Temp. 99°; Pulse 92; Resp. 21
Was kept awake last night by a pain
in his right side, & suffering ... a
sick stomach. He took Sul. Quinia &
Mover's powd. ā ā ℥ss. this morning
12.30 P.M. Temp. 102 3/5. A "tap. line stupe"
is applied to his side; also gave
vers. Mover's powd. & The Quinine is dis
continued, & Extract. Valer. ordered.
4.30 P.M. Temp. 102 3/4; Pulse 88; Resp. 40.
P. somewhat better; still suffers from
a sick stomach -
Mar. 12th, 9.30 A.M. Temp. 99°; Pulse 76; Resp. 30.
He is much improved, but has not
been to stool for two days.
5 P.M. Temp. 102 3/4; Pulse 112; Resp. 40.
He is not very well. Sul. Quinine ℥ss.
ordered to be taken at one time, and

a plenty of hot tea &

Mar 13th 9 a.m. Temp 101; Pulse 99; Resp 28

Had the "turpentine stupes" somewhat last night. Is better this

5 p.m. Temp 99½; Pulse 92; Resp 24

He & nurse have been carefully taken for the past three days. He

improved over yesterday evening -

Treat the same, with the addition of Grs. Sul. Quinine at bed time -

Mar. 14th 9 a.m. Temp 99; Pulse 88; Resp 28.

He is feeling much better; treat is continued.

4.30 P.M. Temp 101¼ Pulse 84; Resp 30

"Turpentine stupes" were applied to both sides last evening. Complaint of pain in both sides. Treat Heux-ham's Tinct ℥j to die -

Mar. 15th, 9, A. M. Temp't 99°; Pulse 80; Resp't 24.
[illegible] Tinct. Chloride, [illegible] Tinct. Zij before meals, & Tinctura
Ferri [illegible] XX at [illegible]
6, P. M. Temp't 107½; Pulse 112; Resp't 41.
Complains of an earache, which he
first noticed at [illegible]
the cause of the increased pulse &
respiration.
Mar. 16th, 10, A. M. Temp't 101°; Pulse 100; Resp't 36
His ear keeps him [illegible] Landa-
num, on cotton is applied locally.
He was to take "twice during the
night. The last [illegible] is due this.
4.30 P. M. Temp't 102½; Pulse 102; Resp't 4
His ear has prevented him from
sleeping, dose of 7 "twice"

today, [illegible] x [illegible] to the
[illegible] of [illegible].

Mar. 17th 8 a.m. [illegible] 100°; Pulse 102; [illegible] p.
[illegible] is a little [illegible] the [illegible] last
night [illegible] breakfast.

5 P.M. Temp't. 100¾°; Pulse 98; Resp't 48 –
The abscess is [illegible] and [illegible],
discharging freely, [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
bed several times today. Olive oil
& Laudanum ℞ ℥j – Sig. a few drops in
his ear occasionally. Treat the same.

Mar. 18th 9 a.m. Temp't. 101¾°; Pulse 103; Resp't 4[illegible].
He says he was kept awake by a hacking
cough. His ear is not relieved. Went
to stool once during the night. His ap-
petite has improved, and has a relish
for his food. Treat as continued –

1.30 P.M. Temp. 101°; [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
Quinine gr. X at 7 o'clock, and Belladonna
XXV gtts. Hrs re nata

Mar. 19th 9.30 A.M. Temp. 101°; Pulse 102; Resp. 32.
His ear is more comfortable. Ate a
good breakfast.

5.30 P.M. Temp. 102°; Pulse 96; Resp. 28. Ma-
rked sense today; his tongue has su-
[illegible] for big days. Ate some
toast and milk for his supper —

Mar. 20th 9.30 A.M. Temp. 100¾°; Pulse 88; Resp. 28
[illegible] [illegible] [illegible] [illegible]
[illegible] him — 4.20 P.M. Temp. 101¾°; Pulse 102;
Resp. 32. [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

Mar. 21st, 9.30, a. m. Temp't. 100°; Pulse 48; Resp't. 28
Slept but little last night. Eat fair
[illegible] M.D., at the request of his
car. Went to "stool" this morning.
Excoriate gr. g. Water Gpe - Hb - Sig. g. th. v
i. his car, several times a day -
3 P. M. Temp't. 101°; Pulse 110; Resp't. 30. a. i
car is worse, has run to stool
twice today. Treatment in time.
Mar. 22nd, 9.15, a. m. Temp't. 101°; Pulse 100;
Resp't. 30. He slept very well last night.
his car is somewhat better. Bowels are
quiet. Appetite is very good -
4.30 P. M. Temp't. 101°; Pulse 102; Resp't. 44
He complains of a pain in his left
side, when he coughs. Expectorate
considerably - Treatment the same.
Mar. 23rd, 9.30 a. m. Temp't. 100°; Pulse 110;

Resp. 32. He feeling better, from having
rest well last night, was off his feed
twice last night, & once this A.M.
4.30 P.M. Temp. 102½; Pulse 112; Resp. 40.
Still has a severe pain in his left
side, his face nauseated by eating
a little. His ear is improving.
His Urine is about normal.
Mar. 24th, 9 A.M. Temp. 100¼; Pulse 96, Resp. 40
Looks he is better in every respect.
A purulent yellow matter is discharged
from his ear
4.30 P.M. Temp. 101½; Pulse 96, Resp. 40.
Still improving. Complaining of a "stitch"
under his right nipple, on inspiration.
Treatment, Mustard Sinapism, and
Tinct. Ferri Chloridi, after meals.
Mar. 25th 9 A.M. Temp. 99¾; Pulse 96, Resp. 36

he is much improved — also his pulse, in quality. 4.15 P.M. Temp't. 101 1/4; Pulse 84, Resp't. 30. He is about the same as he was.

Mar. 26th, 7.10 A.M. Temp. 99°; pulse 84; resp't. 30. Has slept quite well during part of the night, so the pain in his ear. He slept three hours last night. 3 P.M. Temp. 99 3/4; pulse 38; resp't. 40. Find him sitting up for the third time today; walked a short distance with assistance. He is very weak.

Mar. 27th, 7.10 A.M. Temp. 99°; pulse 80; resp't. 28. The pain in his ear kept him awake most of last night. The pain in his side has disappeared.

4.45 P.M. Temp't. 100°; Pulse 84; Resp't. 28

P.M. walking about the ward.

He has been out of bed since dinner.
[illegible] of the cat. [illegible] to
[illegible] [illegible] that he [illegible]
Mar 23rd 8 A.M. Temp 99¾ Pulse 84, Resp
28. Says he feels very rose after sit-
ting up. He goes to stool at least
a day now.
11, 13, & P.M. Temp 99½; Pulse 84; Resp 28.
He sat up three hours this A.M.
He feels very much fatigued after
he retires to his bed —
Mar. 24th 9.30, A.M. Temp 99¾; Pulse 90;
Resp. 32. He is much better, and
the expectation of a pain in his
left side, which he first noticed
yesterday evening, that he received
5, P.M. Temp 100¼; Pulse 92; Resp 42.
He sat up about two hours.

[illegible] side last [illegible] [illegible]
[illegible] feel chilly [illegible] [illegible] to.
Mar. 30th, 9 A.M. Temp. 99½; Pulse 90; Resp.
36. He was kept awake the latter
part of the night by pain in his
ears, also has a pain in right side.
He is sitting up again.
3.15 P.M. Temp. 99¾; Pulse 96, Resp. is
[illegible] to pain about the same, there
is a greater discharge from his ear
this afternoon, than the morn.
Mar. 31st, 9.10 A.M. Temp. 99¼; Pulse 84,
Resp. 32, [illegible] quite much settled
in mind, [illegible] all regular,
[illegible], is [illegible].
5.30 P.M. Temp. 99°; Pulse 100; Resp. 30.
He has not [illegible] the day about

[illegible] left home, [illegible] he
was [illegible] attended, and, [illegible]
[illegible] [illegible] [illegible] [illegible]
much so, that he can almost write
the notes for his clothes. Pouch
as usual. Appetite good. Tongue
coated more, than usual this [illegible]
About 1 P.M. 2 P.M. Temp. 99 3/4; Pulse 85-
Resp. 18. In bath, [illegible] [illegible] [illegible]
his ear kept him awake last night.
5 P.M. Temp. 99 3/4, Pulse 72; Resp. 18.
Complains of having been very
nervous all day. He sat up about
three hours during the day.
About 2 A.M. 4 A.M. Temp. 99 3/4; Pulse 100; Resp. 30
[illegible] his ear [illegible] him, [illegible] dis-
charge [illegible] much last night, con-
sequently was kept awake most of

[illegible] Pulse 76, Resp. 28
His ear prevented him from sleeping
[illegible] as usual.
4, P.M. His ear is not relieved, also
has an intermittent pain in his side.
At 4th 8:20, a.m. His ear still worries him, treatment the same.
6 P.M. His ear is somewhat relieved, still keeps freely with a tea.
At 5th 8:20 a.m. the pain in his chest has disappeared, but his ear still keeps him from sleeping.
4, P.M. Says he feels very well, as he has been sitting up nearly all the evening.

April 6th He doing very well, except his ear, which pains him very much. 5.40 P.M. He has been out of bed two since dinner, he is gaining slowly. April 7th, 8.15 A.M. His ear pained him more than usual last night; so much so, that he could not lie on bed; he coughed most his A.M. 4.45 P.M. He has some soreness in his right side; his ear is easier. April 8th, 9.15 A.M. He applied a blister to his side, and was more comfortable the latter part of the night. The treatment, etc. 5.40 P.M. He has no fever. [illegible] of "Erysipelas," [illegible] the lower two thirds of [illegible] side [illegible] bed [illegible]

April 9th 6.30 She is not well
in every respect. Her bad [illegible]
gre X last night

4.45 P.M. There is no improvement.

April 10th 9.15 A.M. I was [illegible]
[illegible] the [illegible] [illegible]
with, was but a blind leader.
I know dear reader you believed-
alia "mine than others, I often
expects he is about the same-

April 10th 7 A.M. [illegible] was de-
-tected [illegible] "in [illegible]" last night.

5.45 P.M. Her complaint of soreness
in the left side of her head-
Vomiting a bolus in order to
be [illegible] [illegible] [illegible] [illegible]

April 12th 9 A.M. She was taken
[illegible] [illegible] [illegible] [illegible] ago.

He is very active, his [illegible]
[illegible] to be active. "Now
it is [illegible]," his eyes are a
constant tumor," and he [illegible]
his head back at every [illegible]-
tion. The action of his [illegible]
very much excited. It is also [illegible]
[illegible] for, he took [illegible]
[illegible] a rotten egg, that, [illegible]
[illegible] with [illegible] he [illegible]
size [illegible] all [illegible]
have passed away. He says a
[illegible] pain down his ear
along the left side, to the back
of his head, this morning, caus-
ing him to fell "faint", and think it
caused all his trouble this morn-
ing. The left side of his face is [illegible]

[illegible] to the [illegible] [illegible]
[illegible] you [illegible] it is [illegible]
[illegible] "[illegible]" [illegible]
[illegible] [illegible] out [illegible] times
today, but [illegible] order a "Blister
and Poultice" to be applied to his
ear, and to wash it out frequently."
Tempt. 99 3/5; Pulse 100; Resp. 40.
[illegible] [illegible] [illegible] [illegible]
Bronchitis die.

[illegible] [illegible] [illegible]
of the night, he [illegible] [illegible]
[illegible] [illegible] [illegible]
Has not been to stool since
night before last, the pain in
his side has disappeared. He
took a Mixture [illegible] last night,
[illegible] [illegible] [illegible]

tively easy all day; it has been washed out three times, and the bandages changed twice during the day. He was very ill most of the time, April 14th, 9 A.M. indeed he was very low all night, though his cardiac not pain him, until just before day. He coughing off & on most night sweats. Appetite is good. He took a little food last night & 7 A.M. This is the last time to him or discharged today. Have not time to attend today.

April 15th, 10-3, 11 A.M. He is feeling about as well as yesterday; only has a slight cough. Has not his cat. His bowels have not moved since night before last.

[illegible] has been [illegible] and
[illegible] in his cart today, the [illegible]
seem to steal [illegible]
Office 10th, 10 a.m. [illegible] to
die all night. He is [illegible]
[illegible] that the [illegible]
Mrs Pitt's [illegible] disease [illegible] to
Hospital today, [illegible].

Case the 2nd

St. Martin Hare [illegible] Age
with, age 18 yrs, Sailor, Mixed,
Fluid Pneumonitis of the left lung
He was admitted to the Marine
Hospital March 8th 1876 —
Mar. 10th, 9. a.m. says he has been
sick about five days; that it
was caused by a "cold". Does not
remember of any of his family
ever having died of Phthisis. Says
he is very susceptible to cold. Has
dullness on percussion on the left
side; absence of the vesicular murmur;
increased vocal fremitus,
with a high fever, quick pulse,
and hurried respiration; he also
has a "rattling cough". Diag. was
Pleuro Pneumonitis of the left side.

Treatment, Sul. Quinia & Morphia Powder ā ā grs. V tid, with milk & beef-tea, alternating every two hours. Ice to head, Temp. [illegible], Pulse [illegible], Resp. [illegible]

5.30 P.M. Temp. 104°; Pulse 112; Resp. [illegible]. His pulse is slower but more compressible. Treat the same, with a liniment of Hydra Bromid. & Quinia ℥ss XV

Mar. 11th, 9.00 a.m. Temp. 103½; Pulse 112; Resp. 40. He is a little better, has taken Sul. Quinia grs. X

5 P.M. Temp. 104; Pulse 108; Resp. 48. He is about the same, Sul. Quinia & Morphia Powder āā X is ordered, to be given at tea time, also Whiskey ℥ss every two hours —

Mar. 12th, 10.00 a.m. Temp. 99; Pulse 90; Resp. 38

[illegible] symptoms are [illegible] injected,
but is very relieved from the Opium
[illegible] last night. I have changed his treatment to Carbonate of
Ammonia ℥j; Simple Syrup, aqua
ana ℥iiss - Sig. ℥ss every two hours
in milk, and cut in the morning.
5.30 P.M. Temp. 101; Pulse 112; Resp. 32
the symptoms are [illegible] ameliorated this evening, Continue
the same treat. with Sul Quinia
gr. X at bed time

Mar. 18th 9 a.m. Temp. 99 3/4; Pulse 78; Res. 40
the symptoms are much improved.
Discontinue the Quinia, but continue
the other treatment.

5.30 P.M. Temp. 104 3/4; Pulse 112; Resp. 32
the is not so well this evening.

in taking Morphia and every
two hours for his cough. Prof. Thomas
applied the Galvanic battery
at 12 o'clock, the electric current
lasted ½ hr. this, & repeated ½ hr every
three hours. Pill Sul. Morphia gr. X
at bed time.

Mar. 14th, 9 a.m. Temp. 98½; Pulse 84;
Resp. 28. He is much improved,
continue the treatment –

3.30 P.M. Temp. 98½; Pulse 84; Resp. 28.
He is much improved since morning.

Mar. 15th, 9 a.m. Temp. 99½; Pulse 85; Resp. 28.
Says he feels very well, except a
pain in his left side, which he
first noticed about 2 a.m.

12.30 o'clock, Prof. Thomas ordered the Chart,
to be sent me with blood & urine.

[illegible] 11 o'clock; Pulse [illegible]; Resp. [illegible]
more than yesterday. Pulse [illegible]
is full, but very compressible.
Mar. 16th, 10 a.m. Temp. 99 3/4°; Pulse [illegible];
Resp. 36. She is in a [illegible] state
at the last visit.
11 a.m. Temp. 100; Pulse 88; Resp. 36.
She is about the same as yesterday.
Mar. 17th, 9 a.m. Temp. 99 1/4°; Pulse 88; Resp.
32. Says she feels better. Sent by
a bad turn last night, required
nourishment three times during
the night. Treat. is continued.
5 p.m. Temp. 100 1/4°; Pulse 88; Resp. 40.
She is sitting up, eating toast
a bread, bran tea, milk toast in
supper. Has been by stool once
today. Mar. 18th, 9 a.m. Temp. 99 1/4°;

Pulse 102, Resp. 35. He still complains of pain in his left side.
1.30 P.M. Temp. 100½; Pulse 84; Resp. 41.
The milk is discontinued, as it nauseates him, for the to st. of last 4 days he ate some wheat meat, cheese & tea for supper.
Mar. 19th, 10.30 a.m. Temp. 99¾; Pulse 78; Resp. 36. Slept well last night, one want to rest this morning.
6 P.M. Temp. 100½; Pulse 80; Resp. 36.
Mar. pain in his side attended to cough; the treat is continued.
Mar. 20th, 9.30 a.m. Temp. 100°; Resp. 32 Pulse 72. Slept well last night, but complains of pain in his shoulder. Bowels are regular. Appetite is good.

Mar. 18th, 10 A.M. T. 101.5°, P. [illegible]; Resp. 30. I find him dressed and walking about the ward, he has gone to stool twice this morning. 11.40 P.M. Temp. 101°; Pulse 84; Resp. 24. He went to bed about four o'clock, and has not since slept well.

Mar. 21st, 10 A.M. Temp. 99¾°; Pulse 76; Resp. 24. Went to stool once last night; he has some pain when he urinates. Has a loose cough, which worries him most at night.

11 P.M. 101° Temp. Pulse 84; Resp. 28. He is inclining to the same.

Mar. 23rd, 9.30 A.M. Temp. 99¾°; Pulse 92; Resp. 24. Slept very well last night; only complains of his side. 5.30 P.M. Temp. 100°; Pulse 92; Resp. [illegible]

Has been [illegible] all the time
but not [illegible] to stool today.
March 24th 10 A.M. Temp. 100; Pulse 92;
Resp. 28. Slept well last night;
has been to stool once this morn-
ing says his Medicine gives him
a headache.
12 M. P.M. Prof. Gray orders all
Medicine to be discontinued
5 P.M. Temp. 99 4/5; Pulse 88; Resp. 24.
He is still improving.
March 27th Has undergone [illegible].
April 12th He returned to the Hos-
pital, [illegible], but was not ad-
mitted.

Case No 5th

St. Mathew's Hospital. Name; John King.
Age, 40 yrs. Laborer, Irish. Married
Intemperate. Pain in the right side,
He was admitted to the Hospital
Sunday Oct 1st 1871.
Oct 6th, says he first noticed his
shortness of breath Monday-eve.;
he attributes his sickness to ex-
posure, he suffered from incontinence
of urine before his sickness, and
does now whenever he coughs. His
skin is high colored, and small in
quantity; has vomiting with sev-
ere pain, he coughs, and has a sen-
sation of suffocation, when he lies
down. Oct 7th 9 A. M. slept some last
night. His bowels are very loose. Urine
contains no excess of albumen, but is

[illegible], 12.30 P.M. [illegible] of the [illegible]
[illegible] the [illegible] measure an
inch more on the right, than on the
left, the right side, all on percussion
rise up to the fourth rib, above
of the [illegible] respiration, fric-
tion round the scapular was [illegible]
[illegible] disappeared [illegible] of [illegible] time,
after the operation, a moist re-
spiratory sound was heard near
the spine, also a friction sound.
Also [illegible], [illegible] tremulous
at the right side.
5.20 P.M. Says he has coughed very
much since the operation, but
expectorated but little, his appe-
tite is good. April 8th, 8.30 A.M.
says he [illegible] better than usual

[illegible] night, though his cough [illegible] is [illegible] "Tuck" in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] morning; went to stool twice last night. 6.30 P.M. Here not feeling well since three o'clock; his cough is very loose. The edema in one leg has diminished. Has been to stool [illegible] today, has an attack of shortness of breath since supper. Apex at 9.20 A.M. He is not so well as yesterday; expectorates a great deal last night, lyst some on his handkerchief; his feet are somewhat oedematous. 4.30 P.M. Complains more than usual of shortness of breath, also of pressure across his anterior compartment. Has been comfortable

for two days. April 10th, 10.30 a.m.
Slept well last night; his cough
has improved, sent to school, and
this morning took 6 to 8 pills 10 gr.
& Brown Mixture last night.
6 P.M. he complains of weakness and
shortness of breath, the oedema in
his legs has diminished very
much. Sent to school twice today.
12.30 P.M. Was examined by Prof.
Macaldon again today, auscul-
tation found double friction rubing
also above of the pericardial region,
on the right side, heart a dystolic, thus
not at the apex of the heart, there
is some dullness on the left, but
vocal tremitus is distinct, he
also has mitral regurgitation

Treatment—, Syr. Ferri Iodidi ℥ss
XXI-to-ii.

April 17th, 8.40 A.M. Slept better last night, than formerly. Has no pain. 2.40 P.M. Complains of a tightness about his chest. Bowels are regular. Has had palpitation of his heart about once a day.

April 18th 8.30 A.M. Slept badly last night. Says the oedema of his legs, has moved to his body. 3.30 P.M. Complains of the oedema in his abdomen. Bowels are regular. Treat, the same, with Elaterium gr. ss. at bed time.

April 19th, 9 A.M. Has no palpitation of his heart. Bowels are normal. Treat the same.

[illegible] and pain is increased.

April 14th, 2 p.m. Says his urination is very much impeded. His privates are very much distended. 12.30 P.M. Left Hypochondrium diagnosed tympanitis, and a dose hard of Ammonia in addition to the other medicine. 5 P.M. Says he feels very unwell. Bowels are regular. Appetite is good.

April 15th, 9 a.m. Is better, only his privates pain him very much on account of their distention, also suffers from incontinence of urine. His condition of breath has not improved.

[illegible] he is not so well [illegible]

[illegible] of the abdomen [illegible]
[illegible] [illegible]
[illegible] [illegible]
gtts XXX & Whiskey ℥ss ter die.
[illegible] P.M. His breathing is not so
laboured; his scrotum continues to
enlarge. Appetite is good.
April 17th 9 a.m. Slept some last
night, [illegible]; took
Elaterium gr. ¼ last night.
1.40 P.M. Prof. [illegible] aspirated
him the second time, and drew
off 46½ ℥ of fluid. His cough was
very much improved after the
operation. 5.15 P.M. Has had a
chill [illegible] since the above
operation, [illegible]
[illegible]. Treat the same.

April 18th 8.30 A.M. Sight on his face
[illegible] he came
into the hospital last night.
Still complains of his kidneys.
6.15 P.M. He is unconscious, tossing his head from side to side &
coughs at every inspiration. Has
worse an hour ago. 7.30 P.M. He is
dead. It was said to have died very
suddenly. April 19th A.M. Post Mortem. There
was a large Pleuritic effusion
found in his left Pleura; also a
small one in his right. There was
a slight inflammation [illegible] on
the edges of the mitral valves.
The lungs were not hypostatic.
Kidneys & liver were about normal.

Case No. 9

St. Louis State. Married. Young.
Age 42, Height 5 ft. 6 in. Weight 140
Was admitted to the University
Hospital Mar. 2nd 1876. Says he
has been sick about five months.
He first suffered from an irrita-
ble stomach; could retain no food.
Experienced a general feeling
of pain. He expectorated blood at one time. He
coughed most in cloudy, damp
weather. He has a sensation of
suffocation, when he lies on his
left side, but can lie on his right
with comfort. He coughs 12 minutes
frequently; his voice was tested
for aphonia, but was found nor-
mal. He was examined by Prof.
Wood, who found nothing at

more on the left, but partial
dullness on the right side; with
absence of the vesicular murmur,
absence of vocal fremitus, and
somewhat enlarged. On the left
side increased vesicular murmur,
and under the clavicle bronchial
breathing. His heart is pushed
an inch, or more to the left of
its natural seat. He has a
quick pulse, and hurried respira-
tion. Heard no treat. as yet. at
7 o'clock Prof. Gheny examined the
patient again, and having deter-
mined upon tracheotomy, introduc-
ed the needle of the instru-
ment, and drew off ½ oz. of a
straw colored fluid, and upon

[illegible] under the patient's left [illegible] "Pounds" [illegible] set up a violent spell of coughing - Dr. being ordered Sul. Morphia gr. ¼, Simple Syrup ℥j; to be given [illegible] if the cough returned. Upon succession after the operation, the monary resonance was elicited; the dull [illegible] was greatly diminished. By auscultation, the vesicular murmur was heard at the apex of the lung.

May 24th 6 P.M. Sensibility [illegible] Pulse 100, Resp. [illegible] Cough is much easier since the operation. The breathing is more natural, [illegible] air [illegible] effected. It is now May 25th 9 A.M. Temp. 99¾ Pulse 100;

[illegible] 24. He [illegible]
and coughs but little. [illegible]
regular. Appetite is good.
Left the Hospital May 9th
feeling very well. He has been
seen by one of the "Students"
since, who found no trace of
his Pleuritis —.

March the 5th

St. Luke's ward. Name, John Cay. Age, 35 yrs. Weight, 130 lbs. Race, a Saxon. Labourer - Married. Burn of the fourth degree according to Mighton. He was admitted to the Westminster Hospital, March 14th 1876, days he was [illegible] with the exception of a coal oil can, all the skin from his cuticle to his ankles, except a small patch on the anterior portion of his left thigh, is destroyed. Inflammation has taken place, and all the dead skin has been removed. His hands were badly burnt, while trying to extinguish the flames. Dead [illegible] he died [illegible]

[illegible] of a [illegible], who has [illegible]
[illegible] oil on [illegible] [illegible]
[illegible] the dressing, which has been
on for two days, and found
his legs very "foul", after wash-
ing them off, found a [illegible] abscess
to his hands and one leg; bar-
bolized oil to the other.
Dec 15th, 9, a.m. He took Opium
grs ij last night with fair effect.
Removed oil during
the morning, and applied
flour in lac, also put flour
on the bad places of his other
wounds. 5, P.M. A great deal
of pus has been discharged
from his legs today; dusted
over the bare places again.

[illegible]
with the flea dressing, the
the oil, was catheterized about
2, P.M.
July 16th 9, a.m. slept [illegible]
and ℞ x of the same solution of
morphia, last night. after flea
dressings to his wounds this
morning. Catheterized him again
this morning. 6, P.M. Have urina-
ted this evening without assis-
tance, he has not been to
stool for three days. Treatment
Henxham's Tinct. ℥ij ter die.
July 17th, a.m. weight 101 lbs. Pulse 110.
Gave him C.C. pills. ℥ij last
night, also ℞ x of morphia
hydrochloras, at three [illegible]

[illegible] to be [illegible]
ing. He [illegible] until 12
o'clock last night, when he took
opium gr. j. 6. P.M. Temp. 104°. Pulse
120. He has been to stool three
times today, has [illegible] without
great straining. His [illegible] is
hot, and dry, has [illegible] with
pain. His appetite is good.
9, P.M. Gave him opium gr. j. and
Quinine gr. X, 10, P.M. is delirious
and very restless. Temp. 104½° Pulse
[illegible] at 6, P.M. Gave him Morphia
gr. X hypodermically.
July 18th, 8.30 A.M. Temp. 100°, pulse
112. He tossed in his sleep all
night. Has not slept during
the night. Opistotonos [illegible]

[illegible] his wounds again
Mr. Clawson ordered one soft bottle
egg, twice a day, and one pint of
milk to be given, and two oz.
Whiskey this morning -
6, P.M. Temp. 105°; Pulse 130. Dr
Sutting in the city; his bowels
are regular. He ate very little
for supper. Still in bed; ordered
Sul. Quinine gr. X,
9, P.M. Gave his Sul. Morphia gr.
X, hypodermically.
July 19th. 8, A.M. He died last
night about one o'clock, was delirious
and restless up to his
death. His wife says, that he
had been delirious from time to
time before he came to this city.

Case No. 6th

St. Joseph's Hard, Name, John
Height, age 22 yrs. Weight 120 lbs.
Occupation — Miscal — Consumption
Was admitted to the Government
Hospital Mar. 17th 1876, 5 P.M.
Mar. 18th 9 A.M. Temp. 98 1/4; Pulse 100.
Height 5 ft. 6 in. He was taken sick
about four months ago, it began
with a cold. Urine is yellowish in
color. Bowels are regular. He says
it is painful for him to urinate
at times; frequently has a sensation
of tightness about his chest when
he lies down, which is relieved by
sitting up with his elbows
on his knees. He has never suffer-
ed from cough, or sore throat. Ex-
pectoration is sometimes quite

tinged with blood. On percussion the chest is slightly abnormally resonant. Auscultation gives rough bronchial breathing. The inspiratory act is longer than the expiratory. Heat, Lyte, Squill, Ipec, & Pot. Bromide to be det.

Mar. 8th, P.M. Temp. 98 2/5; Pulse 104; Resp. 20. Day. The change of weather has not relieved him. His cough troubles him very much.

Mar. 19th, 10 A.M. Temp. 98 2/5; Pulse 104; Resp. 20. His cough kept him awake most of last night. Heat, Lyte, Squill, & Dr Stimson's anodyne ad gtt. ferr. c. mata, also det. Ether to inhale, as he was a paroxysm comes on him.

5.20 P.M. Temp. 105°; Pulse 140; Res. 28
He is not so well; has been lying down
once today. His distressed breath-
ing kept him from taking his
dinner & supper, the Ether has
come to his aid. Treat the same
with Sul. Quinia. gro. X at bed time;
also Sol. Morph. gro. XXX every four
hours. Mar. 26th, 9 a.m. Temp. 100½°;
Pulse 116; Resp. 28. He is improving,
his appetite is good, but is
frequently prevented from taking
by his laborious breathing.
7 P.M. Taste his stylus was
applied to his chest that
1.30 A.M. Temp. 101°; Pulse 102; Res. 28.
He now very comfortable —;
treat the same.

Mar. 21st, 9.40 a.m. Temp. 100°; Pulse 100;
Resp. 22. He slept some last night.
Mr. Sylvester and Dr. Gill of Hartford
visited him last night. Dr. Bromide of Potash
last night. Says the medicine
nauseates him, the Pot. Brom. is
ordered to be discontinued. He is
very comfortable, while sitting up.
5 P.M. Temp. 99°; Pulse 98; Resp. 24.
There is no improvement. His bow-
els are regular; treat the same.
Mar. 22nd, 9.30 a.m. Temp. 98°; Pulse 90;
Resp. 18. He slept very well last
night, and is improved this morn-
ing. 4 P.M. Temp. 99°; Pulse 88; Resp. 14.
Same as at 9 a.m. Repeat the Pot.
Brom. & Chloral at the time.
Mar. 23rd 9.30 a.m. Temp. 98¾; Pulse 90.

Resp. 20. He has not been to stool for two days. Treat the same. 4.30 P.M. Temp. 99 1/2; Pulse 90; Resp. 22. He is more comfortable this P.M. than he has been since he came to the hospital.

Mar. 24th 9.00 A.M. Temp. 99; Pulse 75; Resp. 22. He has rambled any pain; he has a paroxysm of coughing, which lasted an hour this morning. He has pain in his chest. 4.40 P.M. Temp. 99; Pulse 85; Resp. 14. He slept most of the morning; bowels at regular. Treat changed to Tincture Strychnine 5 & Pot. Iodid. gr. ½ tid.

Mar. 25th 9.30 A.M. Temp. 99; Pulse 80; Resp. 20. Left eye and cheek

2 P.M. Tempt 99½; Pulse 84; Resp't. 18
He looking is more laborious.
Bowels are regular, expectoration very
little, Appetite is good.
Mar. 26th, 7.30 a.m. Tempt. 98¼; Pulse
[illegible], 80. He is somewhat better.
2 P.M. Tempt 99½; Pulse [illegible]
Says he feels very well; Appetite
is good: treat the same.
Mar. 27th, 8.30 a.m. Tempt 98¼; Pulse 76;
Resp't 28. Slept very well last night;
coughs very little, bowels are regular,
Appetite is good.
2 P.M. Tempt. 99; Pulse 78; Resp't. 24,
he complains of a "tickling" in his
throat, which causes him to cough.
Mar. 28th, 8.30 a.m. Tempt. 98½; Pulse 85;
Resp't. 22. He slept quite well

of the night by his cough, treat the same.
Temp. 98½; Pulse 76; Resp. 24
he is doing very well.
Mar. 29th, 10 A.M. Temp. 97½; Pulse 76;
Resp. 24. He slept well last night,
is free from pain. Treat. Pot.
Iodi. gr. v & Opium mixture ℥ss every
1.45 P.M. Temp. 98°; Pulse 76; Resp. 24.
There is no improvement over this
morning. Mar. 30th, 9 A.M. Temp. 99;
Pulse 78; Resp. 24. Cannot lie on
his right side; he feels chilly
this morning. 3.30 P.M. Temp. 99¾
Pulse 92; Resp. 28. He has coughed
very much this evening; his other
symptoms are good. Treat. the same.
Mar. 31st, 8.30 A.M. Temp. 98½; Pulse 76
Resp. 24. Slept but little last

night. His cough is more troublesome lying on his right side.

4.30 P.M. Temp. 99°; Pulse 80; Resp. 24.

His cough troubles him more than anything else. Treat is the same.

April 7th, 8.30 A.M. Temp. 99 2/5°; Pulse 80; Resp. 24. Was kept awake most of last night by his cough. Expectorate more. The stitch in his side, during the night.

11.30 A.M. Temp. 98 4/5°; Pulse 80; Resp. 20. He is comfortable only while sitting up. His cough gives him much pain. Treat the same.

April 8th, 10 A.M. Temp. 99 4/5°; Pulse 80; Resp. 20. Complains of pain in his chest, when he coughs, which kept him awake most of last night. Expectorate.

take again last night

2 P.M. Temp. 100°; Pulse 80; Resp. [illegible]

[illegible] Medicine [illegible]

[illegible] 4.20 a.m. Temp. 101¼; Pulse 105; Resp. 20. Was kept awake by his cough all night. His stomach is very irritable, & bowels are constipated.

4.20 P.M. Temp. 104°; Pulse 105; Resp. 20

Still continues to cough. Went to stool once this A.M. Pot. Brom. & [illegible] are ordered to be taken at the time. [illegible] 4½ A.M.

Temp. 101¼; Pulse 98; Resp. 22. He [illegible] last night, ate a little for breakfast. His cough is better. [illegible]

[illegible] P.M. Temp. 101°; Pulse 107; Resp. [illegible].
Was taken worse about [illegible] [illegible]
[illegible] pain in the right
side, [illegible] [illegible], & spitting
[illegible] to be [illegible] again this
morning. Her bowels are regular.
April 5th, 4.40 A.M. Temp. 100.4°; Pulse
92; Resp. 28. Was took [illegible]
chloral as prescribed again last night.
Slept about half of the night.
Is free from pain: treat the same.
4.15, P.M. Temp. 101½; Pulse 108; Resp. 26.
Was coughing & wheezing all night.
April 6th, 8.20 A.M. Temp. 100°; Pulse 100;
Resp. 24. Her cough kept him awake
nearly all night. Complains of
pain in the right side.
[illegible] P.M. Temp. 100.4°; Pulse 112; Resp. 38

He is not so well, has [illegible]
[illegible] The pain in the side is not
[illegible] the last [illegible]
[illegible] tonight.

Sept. 7th 8.20 A.M. Temp. 101°; Pulse 88;
Sept. 11. Says he slept well the
hours last night. Treat the same.
4.30 P.M. Temp. 101°; Pulse 96; Sept. 20.
He is better; he attributes his last
attack to eating salt "mackerel."
Sept. 17, 8.10 A.M. Pulse [illegible]; Temp. 99½°;
Sept. 18. He has improved very
little. Slept about two hours
last night; [illegible]
[illegible] last night.
6. P.M. Temp. 102°; Pulse 100; Sept.
16. Complains of pain in the
[illegible] of the [illegible] side of the

[illegible] of the cough.
April 9th, 10 a.m. Temp. 100°, P. [illegible]
Pulse 28. Was kept from sleeping
[illegible] the night, [illegible] side
the stupe was reapplied, and
somewhat relieved him. His urine
has been high colored for the
past two days. Gave him Pot. Brom.
& chloral again last night.
4 p.m. Temp. 99°. Pulse 100. Resp. 28
complains of a severe pain in
the right side of the chest. Pot. Brom.
& chloral are ordered for him.
April 10th, 9.30 a.m. He slept much
better last night. His pain &
cough are much relieved.
Temp. 100°. Pulse 84. Resp. 28.
His bowels are regular.

[illegible] but complains of not being able to expectorate; treat the same.

[illegible] 11th, 8.30 A.M. Temp. 99½, Pulse 110, [illegible] the relief a [illegible] in his side last night by a turpentine stupe. [illegible] Pt. Bron. [illegible] was repeated again at bedtime.

[illegible] P.M. Temp. 101°, Pulse 88, Resp. 28. He has been to stool twice today, and is improving; treat the same.

[illegible] 12th, 8.30 A.M. Temp. 100°, Pulse 80, Resp. 28. He is still improving.

6, P.M. Temp. 100½, Pulse 82, Resp. 18. There is no [illegible]; his urine has improved; the same treatment is continued.

he went on [illegible] until
[illegible], when there was a change in
his symptoms. The patient
gradually grew better from the
time of the Mag. [illegible], when he
died, his principle complaint was
shortness of breath, before his
death. The post mortem confirmed
the diagnosis. Both lungs were
found to be highly Emphysematous, especially the upper lobes.
Both were bound to the Pleura by
strong fibrinous bands. A cavity,
about the size of an "almond" was
found in the middle lobe of the
right lung.

Respectfully

Howard Coburn

An

Inaugural Essay

on

Croup

Respectfully Submitted to the

Examination of the

Provost Regents and Faculty

of Physic of the

University of Maryland

For the

Degree of Doctor of Medicine

By

Thomas J. Ward

Baltimore Md

February 1877

Croup

Anatomy of the Larynx

This organ is located in the upper part of the air passages and between the Trachea and base of the tongue. It is a cylindrical tube below and broad above and consists of nine cartilages held together by ligaments and several muscles.

This is the organ affected

lation and inflamation and is also the seat of many morbid conditions.

As I stated above the cartilages are nine (9) in number viz Three single and three pair and their names are Two Cornicula Laryngis — Two Cuneiform — Two Arytenoid — Thyroid Cricoid and Epiglottis —

The Thyroid is the largest and consists of two lateral lamella which are united in front which forms the Pomum Adami this being more distinct in the male than in the female and is sometimes

separated from the integument by a bursa mucosa—

The Cricoid is called so from the resemblance it bears to a signet ring and forms the back and lower part of the cavity of the Larynx—

The Epiglottis is a thin yellow fibro cartilage and bears a resemblance closely to that of a leaf— it is situated behind the tongue, in front of the upper opening of the Larynx and during respiration it is turned vertically upwards also when the Larynx is drawn up beneath the tongue during

deglutition and it closes the open ing of the Larynx and is also connected to the body of the Hyoid Bone —

The Arytenoid has quite the resemblance to the mouth of a pitcher and are situated at the upper margin of the Cricoid and posterior part of the Larynx they both being pyramidal in form —

The Cuneiform or carti lage of Wrisberg is located in a fold of mucous membrane running from the apex of the Arytenoid to the side of the Epiglottis

The Epiglottis, Cuneiform and Cornicula Larynges have but a very slight tendency to ossification and are made up of yellow cartilages, the others resemble more the costal cartilages and in old age become somewhat ossified —

The interior of the Larynx is somewhat of a triangular shape at its opening, it is wide in front narrow behind and runs somewhat obliquely backwards. The cavity extends from behind the Epiglottis to the lower border of the Cricoid cartilage and is

divided into two (2) parts by the projecting inwards of the vocal cords and between these cords is the Rima Glottis —

The two superior or false cords (so called from their not being concerned in the production of phonation) are merely made up of mucous membrane enclosing the superior thyroid thyroid ligaments and between the true and false cords we have the ventricle of the Larynx (the epithelium of which is of the columnar ciliated variety) is continuous with that lining the mouth also of the mouth

of the Pharynx and extends down to the Larynx there are also numerous mucifarous glands over its entire surface but none to be found on the vocal cords.

The nerves are branches principally of the pneumogastric viz Superior and inferior Laryngeal

The arteries are the Laryngeal which are branches of the Superior and inferior Thyroid

The Trachea is a cartilageneous and membraneous cylindrical tube is flat posteriorly and extends from Larynx to third dorsal

vertebrae and is then and there divided into two bronchi one for each lung, its length being about four and a half (4½) inches its diameter is from a half (½) to three quarters (3/4) of an inch and has from sixteen (16) to 20 cartilages which mostly surrounds the entire tube they being somewhat imperfect behind, the tube being completed by fibrous bands or membrane

The cartilages of the bronchae are placed one upon the other they being small and are connected or tied together

by an elastic membrane and are supplied with numerous blood vessels and nerves —

The first cartilage is the broadest and sometimes connects with the next one and is sometimes divided at one side. The last one is thick and broad. These two are the ones presenting any peculiarities of any note, and now Gentlemen I have tried to give you a sketch of the Anatomical arrangement of those parts of the respiratory organs I will proceed and try to speak of a morbid

condition which is very often treated here and that is

— Croup —

This disease may occur at any age but truly speaking it is a disease of infancy and childhood and the only reason I know of for this is the extreme sensitiveness of the mucous membrane in young subjects to all kinds of extraneous influences.

We have two forms of this disease viz Spasmodic or false croup and Pseudo Membranous or true Croup—

Pseudo Membranous Croup or true croup is an inflamma

ing disease of the mucous membrane of the Larynx and has a formation upon its surface of a pseudo membrane.

Some children are more liable to this than others and it may be hereditary but the chief causes are exposure to cold and inhalations of irritating vapors.

This disease is generally primary but may be secondary and the secondary form is not at all unusual in the declining period of measles and it may be a complication of Scarlet Fever.

croup is a rare disease in children under the age of six (6) but is most common between the ages of two (2) and seven (7) years—

The inflammation may extend to the submucous connective tissue causing infiltration, and sometimes the redness of the larynx is only found at the autopsies—

It is said by Wagner that these pseudo membranes contain no fibrin but consist of epithelial cells and it is also said by Rindfleisch that there is fibrin found

upon the layers of these cells
This pseudo membrane may
at times be found in the trachea
as well as in the larynx —
In robust systems
this false membrane is much
finer than in those less so —
Symptoms — Fever — Thirst —
Loss of appetite and Cough which
is cross hoarse or dry and towards
the close of fatal cases
the cough may disappear entirely
There is generally more
sputa thrown off by vomiting
than by the cough and
sometimes portions of the
false membrane is expectorated

if the child be old enough.

The respiration is somewhat accelerated and there may be attacks of dyspnoea and when the little patients be in one of these paroxysms they are generally very restless in bed.

Auscultation will reveal to us most frequently the sonorous and moist rales and the vesicular murmur is eliminated.

Recovery from Croup is slow but gradual but fatal cases may close the scene in from two to fourteen days and the firmness of the false membrane may be the cause of death.

the blood of those who die of this disease is of a darker color than in those who die of disease in which the respiratory organs are not affected.

True Croup commences as a general thing abruptly and at night —

The diagnosis of true croup is as a general thing easily made but it may be taken for Spasmodic Laryngitis — and from what I have read on this subject there are but few of the profession at Home who will hesitate to designate as true croup those

cases in which there is a croupal cough in connection with false membrane upon the surface of the fauces and yet the laryngitis may be phlegmonic —

Prognosis it is unfavorable in the majority of cases but if the treatment be commenced in its earliests stages the mortality may and no doubt would be considerably lessened

Accelerated pulse — increase of dyspnoea — croup and cough diverse are among some of the signs of the fatal form of this disease and all the more shown read on this subject

particularly cautious me in making a prognosis as temporary improvement may mislead most of Practioners —

The approach of death is sometimes made known by the great restlessness of the patient or by the lividity or pallor of the patients face and if the patients recover there will be more or less Bronchitis —

Treatment — As for this there is a wide difference, for if the disease has had a run for two or three days without any treatment the chances for

recovery or greatly retarded for the danger in croup is in the appearance of the pseudo membrane. Emetics have been and still are used and when properly used they are of vast importance; and again great harm may be done by improper use of them.

One thing should always be borne in mind and that is, that depressing emetics should never be given to a patient of a feeble constitution or if the croup be secondary to Diphtheria or Measles.

If the disease be in its

primary form and if the patient
is in general good condition Ipecac or Antimonial
Vinum Tartras may be used
with advantage and of these
two I would most undoubtedly use Ipecac; but in
the secondary form or when
the vital powers are much
reduced a less depressing
emetic ought to be given such
as Cupri Sulph in one or two
grain doses (this produces little
or no irritation) or Sulph.
Mineral may be used and
these as far as I have been
able to see are considered

the best and to either of them a little Ipecac may be added (the emetic may loosen and expel a portion of the false membrane)

If an emesis be not produced in due time I should repeat the dose and if the patient be under three years of age and in the initial stage the Syrup of Ipecac in ℥j doses every ten or fifteen minutes untill emesis is produced and if over that age I would use the Compound Syrup of Squills (Cox's Hive Syrup) in doses of ten 10 to 30 drops according

lage. As for Cardiac sedatives I would think that they should never be given only to robust children and only when the false membrane has formed and of these I would prefer Veratrum Viride or Aconite and for the cough I would give the following

℞ Potass Chlor ℥ss
Amon Mur grs x
Syr simp ℥j M.

and give this in ℥j every hour day & night but if the little patient should be sleeping at night I would

not awaken the patient but would be regular in administering the medicine when the little sufferer is awake.

As for bloodletting in this disease I do not think I would advocate it.

One of the best remedies in this disease is for the patient to inhale steam vapors and indeed I would think that the atmosphere of the patients room should always be moist and well so I remember when any Worthington (Dr. H. T. Howard) lecture on this subject that there

of hydrargyrum chlorid (Calomel) in doses of from ½ to 1 grain every one or two hours until the desired effect is obtained and this is one of the best drugs to be used in this disease. Although calomel may produce Stomatitis and Ptyalism we should not allow this to discourage us in its use, for it is claimed for calomel in this disease that it will relieve the dyspnoea but in what it accomplishes this it still remains unknown.

The inhalation of Aqua Calcis to exert a solvent influence

effect on the false membrane but no matter what we may resort to our principal and main object is to sustain until we have the false membrane detached and for this purpose nothing in my opinion is better than beef tea and pure milk. Things recommends recommends Pulv Alumen in teaspoonfuls and I think no matter what emetic we use its operation will be greatly promoted by draughts of warm water.

If there should be no signs of exhaustion Alcoholic stim.

ulcerants and fresh air will prove quite beneficial.

Now in reference to the local treatment there is still a wide difference of opinion on the subject for some recommend poultices - some irritants and others cold applications and here again if I remember correctly Prof Hewson recommended the use of cold applications but that it must be used very cautiously and if used it should be placed over the larynx and renewed every five or ten minutes or crushed ice in a

bladder may be used and if the treatment be not carefully watched it will rather provoke than relieve the inflammation.

Other topical treatment.

Nitrate of Silver is recommended in solution say from grains (x) ten to (xx) twenty to an ounce of water to be applied two or (3) three times a day. Now it being rather a difficult thing to make an application to the larynx or a blind one, we will have to look to other means and for this we have Bromine — Acid Carbolic and the following is a formula

highly of.

℞ Liq. ferri sulphatis ℥j
Glycerin Opt ℥iij

If we should use Carbolic Acid it should always be well diluted

Nitrate of Silver does not dissolve the false membrane but contracts and therefore causes its detachment.

The danger from this disease is more to be dreaded from the dyspnoea rather than from Asthenia.

Now there is another and a great question to be decided and that is, shall or shall not tracheotomy be

performed upon this point there is quite a diversity of opinions and from the statistics that I have seen on this point I would not recommend the operation to be performed on patients under the age of two (2) years as the statistics show that the mortality is exceedingly great.

Trousseau has been the most successful operator in this disease and advocates it strongly. Bouchut reports 188 cases operated on with 112 recoveries and there is another report of 129 cases and 39 recoveries and what is claimed for

tracheotomy is that it renders death more easy and at the same time there is a chance for recovery as can be hoped in Medicine I would think it the duty of a Physician to take the advantage of such a chance.

Authors differ as to what time this operation should be performed. Some say operate as soon as we have evidence of the formation of the false membrane and by others not until the blood shews signs that it is deficient of Oxygen such as lividity

of the frictation and lips of the finger and in this case they say no time should be lost.

It is claimed by Authors that the larger proportion who die after the operation die of Bronchitis or Pnuumonia

The Operation of Tracheotomy is an opening into the trachea exposing it and cutting two or more of its rings The patient being placed on a bed his shoulders being well supported by pillows and his head thrown well back then I would put the patient under the influence of Ether for if there be any spasm

especially in children they respire more easily under its influence and if there be any struggling the anaesthetic will quiet this and render the operation more easy to the operator; the incission should be made about an inch in length and be made with a scalpel in the mesial line from the Cricoid cartalage downwards, when any vessels present themselves they should be avoided as much as possible and held aside by a with a blunt hook, by dilating the incission with a director the trachea can be reached easier. It should

[illegible] tube fastened down
[illegible] with a tape to prevent
[illegible] the wind & the [illegible] tube
[illegible] the strings thereof are
[illegible] three of them, then intro-
duce the tube it being held in
place by tapes placed around
the neck. Hulbert's vaccine tube
is highly spoken of for this opera-
tion. Treatment after operation,
Perfect rest and quiet
ness, liquid food and it be
be very nourishing

Thesis C.

South Carolina,

by

Geo. S. Smith.

Acute Rheumatism

This disease is sometimes called acute articular rheumatism, as it invariably affects the joints, but not generally present the appearance of inflammation. The lining membrane of the joints is inflamed, but acute inflammation in this situation differs from ordinary inflammation, in this, that it very seldom affects the [illegible] tissue. And the inflammation [illegible] very often completely disappears in the course of a few hours.

[illegible] cases [illegible] complicated cases in which life is destroyed by [illegible] affections [illegible]

the affection [illegible]

by [illegible] in the [illegible]

[illegible]

[illegible]

the internal organs which [illegible]

become inflamed. [illegible]

is generally seated in [illegible]

[illegible] especially in [illegible]

and endocardium. This inflammation

[illegible] that it proceeds to the exudative

[illegible]

[illegible]

[illegible]

[illegible] unions with a [illegible]

[illegible] is [illegible]

[illegible] cases [illegible] to [illegible]

[illegible] bed, which precedes [illegible]

[illegible] relations for a time [illegible]

[illegible] to one or two days; [illegible]

[illegible] sometimes called "rheumatic fever,"

[illegible] ical of acute rheumatism. Generally

the fever and local manifestations are

at the same time. Pain and soreness of

the joints sometimes precede [illegible]

[illegible], the development of the disease, which

is always ushered in by [illegible]

or more of the articulations. The local

signs are pain, increased heat, redness

of the skin, swelling, and tenderness to

[illegible]

different cases,

[illegible] very severe so long as [illegible]

[illegible] kept perfectly quiet. Pa[illegible]

[illegible] by movements of [illegible]

[illegible] cases the slightest motion

[illegible] intolerable; even jarring the bed or

[illegible] causes suffering. Pressure over

the joints is very painful. Owing to the

[illegible] caused by movements, the patient

[illegible] inclined to maintain as long as possible

[illegible] fixed position; changes of the limb

[illegible] position, often causes extreme suffe[illegible]

[illegible] is generally more swelling in joints

[illegible] connected with muscle, or rather it

[illegible] noticeable in the knee, ankle,

[illegible] swelling

the hands and feet, it is less apparent in the hip & shoulder.

The swelling is due to the [illegible] increase of liquid within the synovial cavity and in fact effusion into the surrounding structures. The redness is due to an erythema in the [illegible] which generally present uneven borders. The redness, like the swelling, is not apparent over the hip and shoulder, but [illegible] joints [illegible] superficial. Generally the swelling and redness are in proportion to the severness of the [illegible] time. In some cases several joints are affected either at the same time or in

[illegible] other [illegible]
[illegible] is [illegible] to [illegible] joints
for a greater or less period; but in
the course of the disease, in many
cases, various joints are successively
affected. It seems to be a peculiarity of
the rheumatic inflammation that
one or more of the joints affected should
be free from pain or tenderness
clearing within a few hours, and
then another should be in the
same manner. Cases differ as regards
the number of joints affected during the
course of the disease; in some cases very few
or no joints escape, and in other cases
the rheumatic inflammation is limited

[illegible] number

[illegible] is attacked, either at the same time, or successively, the order in which they are attacked [illegible] the [illegible] relations seem to be governed by a [illegible] pathological law, that is, the [illegible] Corresponding joints are [illegible] affected together, and when this is not the case, the different affected joints are either on one side of the [illegible], or joints on the two sides which are analogous; namely, the knees and elbows, wrists and ankles, hips and shoulders, [illegible], affected in combination. As above stated, acute articular rheumatism is always

commenced with [illegible] chill followed by movement, but [illegible] of the fever is not always in relation to the number of pimples upon the skin or the intensity of the inflammation, [illegible] by pain, soreness, heat, &c. The fever is generally [illegible] judging from the bites than in other fevers, bronchitis, the eruptive fevers, and erysipelas of the face. The [illegible] very seldom exceeds 90° per minute.

Vomiting is a symptom more or less prominent, and occurs generally at night. The tongue has no [illegible] a dirty color. The appetite is either lost or very much impaired.

There is generally a good deal of thirst.
The tongue is more or less furred or coated.
The saliva becomes insufficiently acid.
The bowels are sometimes constipated,
but occasionally there is diarrhœa.
The urine is diminished in quantity,
its specific gravity is high, owing to the
increase of urea and decrease of water;
the coloring matter is increased, and on
cooling, the urates are deposited in
abundance. Owing to the increase of
the pigment of the urine, the sediment or
deposit is usually of a reddish color.
The deposit of so much of this sediment
does not show an increase of the amount
of uric acid in the urine, but only the

[illegible] of [illegible] [illegible]
analyses of the urine have shown that
there is no more uric acid in it in [illegible]
of rheumatism than in health.
It seems to be the tendency of acute articular rheumatism, in the course of the disease, to invade certain of the structures of the heart. In a considerable proportion of cases we have endocarditis occurring. The inflammation, usually, is limited to the membrane lining the left cavities of the heart, and more especially, in addition, of this membrane which enters into the composition of the mitral valve affected. In a large number of cases of valvular disease of the heart, their cause may be traced

Rheumatic endocarditis.

Pericarditis is not found [illegible] as a sequence to [illegible] rheumatism, [illegible] much less. But both pericarditis and endocarditis are often found together in the same case and at the same time. It is sometimes the case that heart affections and endocarditis precede the local manifestations of rheumatism, and [illegible] it seems to be connected to such affections as a complication. [illegible] [illegible] the local manifestations of the disease; that is, they are dependent on the same internal and determining cause to the affection of the joints or skin.

[illegible]

internal [illegible]

[illegible]

[illegible] grials, as for [illegible]

[illegible] consequence of the [illegible] that the

disease [illegible]

[illegible]s, and among which are included the

[illegible] and [illegible], it

must be remembered that rheumatic

endocarditis and pericarditis, [illegible]

[illegible] in this [illegible],

that they generally present the [illegible]

results of inflammation, that is, the [illegible]

[illegible], the formation of a

false membrane, and sometimes

[illegible]; which results are

[illegible] heart that [illegible]
[illegible] from rheumatic inflammation
[illegible] generally considered the [illegible]
[illegible] the continuance of the disease.
Sometimes this valvular complication of the heart is not recognized until [illegible]
or after the termination of the local manifestations of the disease to [illegible]
[illegible] it may occur at any time in the general course of the disease. But in the majority of cases it occurs first in the middle or early stages.
Acute articular rheumatism [illegible] a self-limited disease, [illegible] varies greatly, [illegible]

[illegible] which is a fact.
[illegible] fever [illegible] the decrease
[illegible] itself, that is, no active meas-
[illegible] of treatment [illegible] employed. The
peculiarity of acute rheumatism to
differ from the essential fevers, in this,
that it does not pursue a steady and
continuous course from the beginning
to the end, but its progress is [illegible] the most
fluctuating [illegible] variations as regards the fe-
bral and local symptoms, and more
especially the latter. It often occurs, that
after a few days, the patient feels
nearly relieved from pain and soreness,
the joints are but little swollen, and
[illegible] appearance goes to prove that [illegible]

[illegible]

[illegible] and the fever [illegible]

[illegible] form; And this may occur several [illegible]

during the course of the disease.

As to the pathological change [illegible]

disease, it seems from the [illegible]

fluids which are affected, the [illegible]

changing of the inflammation from place

to place, and more especially the observance

of the law of parallelism in the arthritic

affections, that there is involved a morbid

poison in the blood, which is [illegible] the

action of this morbid principle, [illegible]

deposits are not spread, but the majority at

[illegible] lactic acid

[illegible] this supposition as

[illegible] fully correct, and it is generally accepted as a rational basis of treatment.

However, this supposition is in the words of most [illegible] [illegible] assuming it to be true, it is evident that the presence of lactic acid in the blood is an effect of morbid conditions of the nutritive position, is not present from the source of the production of this acid. The principle remains yet to be found by demonstration; what-ever it may be, surely is an intrinsic production; that is it is not received from without the body.

The pathological essence of the disease un-

as long as its production goes on,
so long as the disease continues,
the disease ceases when the
principal is no longer produced.
It is principally circulating with the
blood, acts upon certain parts and pro-
duces local manifestations of the disease
and in its action upon the parts affected
an eliminator for the foreign tissues and
especially those coming with the com-
position of joints. It seems that the
Prussic acid treatment has caused an
effect, from the fact that a tissue
thickening has occurred in some cases
of diabetes treated with this acid.

[illegible]

[illegible]

[illegible]

by suppression of the functions of the [illegible]

and attributed especially to the [illegible]

of cold upon the surface of the body;

however, this view has [illegible]

It seems that the causation may involve

the agency of cold, but it is likely that it

only acts as an exciting cause. The

disease involves a rheumatic diathesis.

This predisposition or diathesis may be

congenital and inherited, and may not

always be required. There are some persons

who seem to be culiarly prone to the

disease. This is shown by the occurrence

occurrence [illegible] majority of persons who are [illegible] and by it. It is a matter of [illegible] that the disease breeds [illegible] different members of certain families.

Age seems to have a decided influence in the causation. Very rarely, it seems, that we find a case of rheumatism in a child under the age of five years; though it may occur in infancy. But in the majority of cases, children between fifteen and thirty years of age. After the age last mentioned without having experienced one or more attacks, the liability to the disease attenuated diminishes, and becomes [illegible]

after fifty. [illegible]

[illegible]

a disease of much more frequent occurrence in all climates within the temperate zone, than in the tropical, or in the extremely cold climates, where it is exceptional from rarity.

Generally the diagnostic features of particular climates are so plain that the disease is recognized at once.

The chief difficulty in diagnosis is in the discrimination from functional rheumatic pains, which cases in which the rheumatic affection is confined to a single joint. The greatest trouble in this case is to determine whether it is really rheu-

[illegible] local affection
the joint [illegible]
separates [illegible]
The following are the points which may be cited upon in his differential diagnosis. There is a fixedness of the inflammation in the joint—affected with synovitis which is not peculiar to acute rheumatism, whereas in it, when only one joint is affected, it may relapse in the same but the mobility of the disease is not to some extent manifested. There are fever existing before the affection of the joint in some cases of acute rheumatism. There [illegible] between the febrile movement and the local

[illegible] local affection and [illegible] matic; whereas, in them the local [illegible] [illegible] disappear [illegible], and the effect [illegible] expedite [illegible] [illegible] [illegible] the recurrence of [illegible] and pericarditis in a certain proportion of the cases of acute rheumatism which [illegible] occur in cases of simple [illegible]. The previous occurrence of [illegible] in the patient, and disease [illegible] [illegible] into a fatal [illegible] [illegible].

disease in which I would
hope [illegible] would
recover from the effects of the disease, unless
it be from its complications, which are generally
[illegible] and cardiac, but it
seems the most of the cases, in which the
mitral valve recovers.

This disease arises from the deposit of
[illegible] in the substance of the valve
which may be the
foundation for incurable and fatal
[illegible] heart. It seems that the lesions
are from immediate and cardiac [illegible]
occasion inconvenience until after the
lapse of several years, but the immediate
[illegible] from its effects is [illegible]

slight beneficial effect, but the best
always fails. The remedy is
and in many cases no evidence of it remains.
It seems scarcely necessary to make men-
tion of all the different modes of treatment
that have been in use for a number of years
past; hence reference will only be made
to those of most recent date. The practi-
tioners of this country have free recourse to
the alkaline treatment, for some time back
in rheumatism, and of late years, it seems
to be universally acceptable as most in accord
with the view which has been presented of
the pathology of the disease. The bicarbonate
of potassa, the bicarbonate of soda, the
tartrate of potassa and soda, &c.

[illegible]

What is most to be desired in the treatment of acute rheumatism is the arrest of the production of the morbid poison which is contained in the blood; and [illegible] means of accomplishing this end. Next in importance to this is [illegible] to neutralize the morbid principle and to eliminate it from the blood, and it is claimed that the alkaline treatment accomplishes these objects. Assuming the principle that lactic acid is neutralized by the introduction of alkalies, and that one effect of the treatment is an increase of the secretion of urine. With reference to the latter object,

[illegible]
should be given at once in large doses
[illegible]
the urine from alkaline [illegible]
in order to secure as quickly as [illegible]
[illegible] the formation of uric acid
cardiac affections. Some practitioners
[illegible] to [illegible]
the bicarbonate of either potassa or
soda repeated every four hours;
[illegible] it more agreeable to the palate
and stomach, it has been advised
to add citric acid or lemon juice
to each dose, which is to be left
[illegible] effervescence. This quantity
[illegible] given in this way is from [illegible]

[illegible]

[illegible]

hours. Others have given it [illegible]

inconvenience to the patient [illegible]

[illegible] produced [illegible]

in twelve hours. The [illegible]

[illegible], provided it be not pushed too

far, nor continued too long. [illegible]

[illegible] [illegible] [illegible]

[illegible]. The [illegible]

[illegible] remedy which has been found

should be used [illegible]

as soon as the [illegible] is perceived at

[illegible], the doses afterwards being

repeated once or twice only in the

[illegible]

[illegible] produced by the [illegible]
[illegible], the acetate [illegible]
of potassa, the acetate of [illegible]
or small doses of [illegible]
[illegible]. The tartrate of potassa [illegible]
is much given as an alkaline remedy
in this disease, but it is inferior to
the bicarbonate of potassa [illegible] on account
of the fact that it must be given for a much
longer time before the urine is rendered
alkaline. However, it is very well adap-
ted to maintain the alkalinity of the
urine, after this condition has been
produced by the bicarbonate of potas-
sa or soda. [illegible] therapeutical measures

are all to be considered with reference
to the indications in individual cases,
which are not precluded by the ab-
solute treatment. If even bleeding is
advisable, it is indicated only in
cases in which the febrile movement
is intense, and the patient plethoric.
Sometimes the function of accidentally
to prove with advantage, as it appears
is marked in reducing the frequency
of the pulse, and the temperature of the
body; it also seems antiphlogistic as well
as an arterial sedative. Cold water
may be used, if agreeable to the patient,
by means of sponging the body, when
the thermometer denotes an increase
of temperature at, or above 104° F.

[illegible] should be no [illegible] [illegible]
[illegible] has [illegible] [illegible]
circumstances, and by [illegible]
ing the temperature of the body [illegible]
efficacious palliative measures to
[illegible] the heart, is marked. When [illegible]
tolerable, full doses of [illegible]
Continued purging is never indicated,
as it conflicts with the alkaline treat-
ment, and the necessity for frequent
deglutition occasions much suffer-
ing. Opiates are especially indicated
at night. They often afford much relief
and should be given according to the
amount of suffering from pain, wake-
lessness, and vigilance. Let the
patient drink as much as he wants

of [illegible] [illegible] [illegible] [illegible]
so long as his stomach is not in-
commoded. Of late years lemon-
juice has been given in large quan-
tities as one of the remedies for this
disease, and it acts as an alka-
line, but when taken in large doses
for a sufficient length of time throw
the required alkalinity of the
urine, the stomach often rebels
against it, and therefore, the effervescing
carbonates are to be preferred. The
strength of the patient should be sus-
tained as much as possible, as
nothing is gained, but often a great deal
lost by lowering the powers of the
system. Tonics are useful and

especially the perforations of [illegible]
[illegible] effects with an [illegible]
diet should always be nutritious, and
as much exercise and rest as can be
taken as is consistent with the capacity
for the position. Occasionally a mild cathar-
tic, of rhubarb or skinner is advisable.
The short history given of the case
shows the effect of the alkaline treatment
and maintained this effect, it is
expected to return and to increase the
vital forces. The effected fistula
claims local measures of treatment.
It is also found very beneficial to
make applications of cotton saturated
with an alkaline and aromatic solution
to the affected parts. The surface

obscure ailment has been treated by some, and found to be a very prompt local application. The tincture of cocoa applied to the affected parts affords much relief in many cases. In the choice of the local applications the sensations of the patient may serve as a guide. Some practitioners prefer to envelop the joints with dry flannel or cotton wool. In some of the kinds, where joints are affected, by means of a card and pulley with the weight attached, will often render the patient much more comfortable by relieving the articulating surfaces of the joints during the inflammatory stage. Methodic friction may be em-

[illegible] the [illegible] day [illegible]
some lubricating agent such as [illegible]
ing with gentle pressure and gradu-
ally increasing till you can press
with nearly your whole force upon
the affected joint, which nothing d[illegible]
without occasioning any pain. The
method of treatment may be repeated
two or three times a day, if required by
the patient. It generally relieves the
suffering, and leaves the patient in
a more comfortable condition for sev-
eral hours afterward.

Salicylic Acid has lately been in-
troduced into the profession as a reme-
dial agent in this disease, and thus
far, has proven to be one of the best

importance. It is to be regretted that its therapeutical history is not more elaborate, but from its recent introduction into the Materia Medica, this could hardly have been anticipated. The following in reference to it may be cited from Dr. Geo. V. Dell of the University of Virginia, who gives quite a number of cases of the most confirmed ague & other conditions, which have been speedily and effectually relieved by the use of this extraordinary agent. The specific effect of Quinoline would in rapidly diminishing febrile temperature was accidentally discovered while it was being administered as an antiseptic in typhoid fever. It was administered

[illegible]

was immediately resorted to in other
forms, and always with the most
satisfying results. The ordinary dose
fifteen grains. The best methods of
administration are dissolved in a
tablespoonful of the liquid diluted, or
dissolved in a solution of bicarbonate
of sodium, which will dissolve half
a scruple of the acid, say, bicarbonate of
sodium thirty grs. to fifteen grs. of the acid.
Dr. Cobb has used it with great suc-
cess in inflammatory rheumatism.
He gives it in doses of fifteen grs.
every four or six hours, then in the
same dose three times a day.
It is formable, possible by dissolving

[illegible]

Dr Coffee [illegible] E. [illegible] of Salicylic Acid in the [illegible] times as a febrifuge, and [illegible] it should be generally known to the profession as a specific in the treatment of Acute Rheumatism.

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Va.

University of Maryland.

School of Medicine.

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An
Inaugural Dissertation
on
"The Laws of Hygiene
and their
"Practical Applications."
Submitted to the examinations
of the
Provost, Regents and
Faculty of Physic
of the
University of Maryland.
For the Degree
of
Doctor of Medicine
by
L. Ignatius Turner.

To.
Prof. F. Donaldson M.D.
This is dedicated
As a mark of esteem & gratitude
by.
-His Friend and Pupil-

In endeavoring to put forth a few ideas on this a subject so all important in its bearings on "practical medicine", we recognize at the outset the many disadvantages under which we will of necessity labor - principally those arising from practical inexperience - obstacles which in themselves include the idea of our attempting anything purely original, but, originality not being expected under the present circumstances, it shall be our endeavor to put our ideas as we have gleaned them from the "Lectures" and the reading of those authors recommended by our preceptors - Remembering the many exhortations received - viz "to study this subject with special care, as in its cure have our strongest weapons to stay disease

and as it comes daily into requisition not only to the "general practitioner", but equally to the "specialist". Hence a thorough acquaintance with it is of the first importance - constituting as it has been said:- "the foundation of Rational Medicine", for to study it aright, premises a thorough knowledge of physiological anatomy & Chemistry - besides a practical acquaintance with Physics -

We deem therefore that our time, so far, spent, have been very well spent, if we shall have succeeded in getting only an insight into the subject, for recognizing its extent both as to time and locality and its importance as a prime factor in medical science, and remembering the old saying "one insight leads to another", so we may.

here that by time, experience and assimilation, to obtain sufficient store to enable us to work for ourselves, see for ourselves and to administer the good we may have thus obtained, for the benefit of our fellow men-

Hygiene (from ὑγιεία, health) means the art of preserving health - that is of obtaining the most perfect action of mind & body - It aims at rendering growth more perfect, decay less rapid, life more vigorous and consequently death more remote - taken in its largest sense it signifies - "rules for the perfect culture of mind & body," as it is impossible to dissociate the two - the one is the key to the other - and each consequently is influenced by the other - In arriving at such a

system of rules what should & what could only be our standpoint? Nature - She is the prototype of all science, & therefore of all art - Read her correctly & we can arrive at something definite, conclusive and practical - But the word "nature" means much admit it - take it in its literal signification and let our actions toward her, be as she is, namely, extensive, constant, correct and meaning -

The practical Physician in his researches does not take facts simply because he recognizes them as such - he knows the fallacy of the "post hoc, ergo propter hoc" - but it is his object to enquire into causes which when once found can be made to serve useful purposes and assist his further research - He brings to his aid the

lower orders of animals - studies their anatomy & the various physiological processes going on in them - both chemically & microscopically - notes the actions of the various conditions of life, upon them - in a word, he sees what is good & what is bad for them - or what tends to promote & what to retard the vital functions - Furthermore he studies them in disease - sees how the various normal functions are affected thereby - what new morbid products are created in them & what agents he may possess, by which they may be neutralized - & comparing these researches to those he can make to a certain extent only in man, recognizing in their anatomy both those points which are similar

and those which are dissimilar to those of man and seeing the different physical conditions in them that are the foundwork of certain physiological & pathological functions - he reasoning by analogy can arrive at practical conclusions, which although they may not be absolutely infallible, yet closely bordering on scientic accuracy. It is this that raises modern or rational medicine above the old school of empiricism -

In order therefore to arrive at a systematic classification of the various hygienic laws from which we may make practical applications for the regulation of our health, we will have to consider man, in all his possible bodily & mental conditions - or as Parkes says

I In relation to the natural conditions which surround him - & which are essential for life, such as the air he breathes the water he drinks; his food, the source of all bodily & mental efforts - the soil on which he moves, & the Sun which gives him light & heat -

II In his social conditions - as subjected to a variety of influences from his own acts - as a member of a community with certain customs, trades conditions of dwellings, clothing &c - subjected to social & political influences sexual relations &c."

III In his capacity as an independent ~~member~~ being, having within himself sources of action as in thoughts, feelings, desires & personal habits, all of which

affect the health & which regime self-generation & control - "Could we attend to all these conditions, could we see that generally & individually they were regulated as they should be - disease would eventually almost disappear - But as such a system cannot be adhered to rigidly by the majority, from force of circumstances - we should see that they are regarded as such circumstances shall permit - and thanks to our medical boards, these things are receiving, some, at least of the attention they deserve, and we feel forcibly the good accruing from it & are reaping the reward of their labor.

Now as to the quantity & quality of these "vital surroundings" - how we

they to be regulated practically & so
into all the details of these matters
were the work of one largely experienced
therein - & to quote those who have done
it, were too lengthy ~~here~~ for this place -
yet we would venture to mention the
principal points as obtained recog-
nized by the best authorities - than
which no other are better than the reg
ulations of the British army - as they
are made from the exact scientific
observations of the greatest minds of
the country, on these subjects & con-
stantly being improved by their further
research - Following their course
we will consider, first, that indispensa
ble medium which constantly sur-
rounds man - namely the Air -

It is a physiological question of the greatest importance to determine precisely the amount of air necessary for the vital process of respiration. Now "an adult man inspiring & expiring 30 cu. in at each inspiration & breathing 18 to 20 times per minute would necessarily expire 28,800 cu. in or 16.66 cu. ft per hour - air naturally containing 0.4 per 1000 vols. of carbonic acid gas - and the air he breathes out contains 40 vols. per 1000 vols. therefore in the course of 24 hours 12 to 16 cu. ft of gas would be given off. - consequently sufficient air must be given to enable him to keep this in such a state of dilution as not to be harmful - now, when the amount of carbonic

acid gas exceeds 0.4 per 1000 vols, it commences to be injurious and although its effects may not be in the slightest degree perceptible, yet it exerts them, & long continued, the injury done by it will become apparent - Therefore in order to keep the injurious gases to the percentage of absolute health, more than 100 times the expired air must be furnished or 1600 cu. ft per hour. This rule holding good for an man in ordinary good health, is of course liable to variation - needing more of a supply in accordance with the increased function of the lungs and vice versa - Foreign matters suspended in the air are of course, not in strict accordance with the laws of health, in

any quantities, and although small quantities of very minute particles may fail to produce any recognizable evil influence, yet such is the possibility and experience shows that under certain conditions of health, they are very dangerous adulterations, so to speak, of the atmosphere - for two reasons - firstly, because the weakened condition of the parts will not bear them & secondly because large quantities may be inhaled without the individual having the slightest knowledge of their presence - Besides this - the germs of some of the worst diseases that afflict the human race - float in the atmosphere as minute particles - So therefore, when such matter exists - you should remove it by free ventilation or your

remove from it. With regard to sick men it is impossible to decide what quantity of air should be allowed - In some diseases, as Typhus & Typhoid Fever, Variolo Pyæmia &c, so much organic matter is given off that scarcely any amount of indoor ventilation is sufficient to remove the odor etc. "In the New Hotel Dieu at Paris" says Parkes "it is intended to give at least 100 cubic meters (3500 cu. ft.) per. head per. hour, but it is questionable whether this is sufficient - In our own country we are not much behind in these matters & our hospitals are receiving attention on these matters of ventilation & our death-rate by their decrease in proportionate numbers, shows the good resulting from that attention to these rules - It is need-

less to mention the scrupulous care with which surgical wards should be looked after as regards ventilation - decided it were best to have no such things as surgical wards proper, as it is the opinion of every surgeon, an opinion based on ample experience, that all surgical diseases of any severity, & especially those of wounds where we have a large suppurating surface exposed, are best treated in the open air with just enough protection to shield them from the weather - The reports of the army surgeons of the late war in France show this in a very striking manner - Nay the reports from Blackwell's & the other islands outside of New York devoted to Hospital purposes all con-

from what I have said - & indeed to bring the matter home to our own hospital we see the truth again shown forth - and the tent system was introduced there years ago, where the cases suffering from the contagious diseases were & would be still put ~~in~~ sufficient in ~~themselves~~ itself to convince us, I hope - It matters not in what category we chose to place diseases, they all fall under the same rules to a greater or less extent - namely, "abundance of fresh air, as laid down in the succeeding tables," is of the first importance in ~~healthy~~ treating diseased conditions, & this should never for one instant be forgotten" - rather overlook the medicinal

treatment, never the fresh air - these matters we fear are dealt with in many cases with negligence, may in some in ignorance -

As to the nature of the matters suspended in the atmosphere, we have already made some allusions, but to classify them they may be said to be of the organic & inorganic varieties - Thus, we may have the animal kingdom represented by the actual presence of animalcules of large size, comparatively, such as those that arise from marshes &c - The germs also of Vibrio, Bacteria monads etc may be present - Then the debris & seeds from the vegetable world appear in the forms of pollen, spores of fungi, mycoderms etc, which may grow

in the atmosphere & being inhaled produce evil results. It is not to our purpose to mention the various modes of detecting these matters, as laid down in the books, but simply in mentioning the axiom there laid down, is we ~~have~~ hope sufficient for our subject. It is as follows - "Never allow the atmosphere, which is to be breathed, to stagnate - but always, allow, & encourage its own free motions by an ample & thorough ventilation. The many impurities arising from man, & their habitations, factories &c, as the products of decomposition of their bodies, of the various materials burnt, of the refuse of their tables, water closets &c are all matters of a special interest

but it is impossible, ordinarily to regulate these matters as we would do here in theory & in general, attention to the foregoing rules, or in other words an abundant ventilation, would throw off the possibility of injurious results coming from that quarter - This subject of ventilation is one in itself sufficient in extent for the study of a lifetime and the good that can accrue from correct principles in this regard put into daily practice must surely be evident to all - But time warns, & we leave it though desiring to say more about it - The subject of Water, is one which holds a place second to none - Recognizing its importance, as a principle factor in the construction of our houses

and the important part played by it in the vital processes, and the horrible consequences ensuing upon its withdrawal as an article of food, we cannot fail to appreciate the importance of obtaining a sufficient quantity and the requisite quality thereof. There is nothing used by man as an article of necessity, subject to so many impurities, as water. Here they exist in every form. almost every ~~variety of~~ sort found may be present here, and almost every variety of animalcule or at least the worst of them & every vegetable spore, seem to choose water, particularly for its habitat. Moreover this man himself does much towards its further contamination for he uses it as a vehicle for the removal of all his excreta all the filth collected in his ~~sewers~~ sewers & cess-pools

and unless the sanitary arrangements have received especial attention, these insects may readily find their way into the drinking or washing waters of his neighbor & thus disease make its appearance - Indeed the subject of sewers & drainage is one of almost vital importance to communities - It is the gateway for the introduction of the greatest number of some of the most severe diseases that visit mankind - contaminating as bad sewers do, the air first & thus directly the whole passes coming in contact with such an atmosphere - or as said before, may enter into the food - See the malarious diseases - & Typhus & Typhoid fever - Yellow fever - Cholera & others all may be frequently are introduced

in these ways - Then the variety of diseases that are caused by the presence either of an excess of earthy salts or vegetable matter as some of the various Skin diseases Diseases of Bones, Calculi, Goitre & Cretinism - ~~water~~ also the many entozoa that come in this way - These are sufficient examples & the mere mentioning of them is sufficient for our purpose for we accept these facts on good authority & refer to those authorities for the various modes of detection & elimination of these foreign matters - Waters obtained from different places contain one or other some of matters in excess over the rest - Thus certain springs contain various substances, one having an predominance of iron, another of ~~lime~~

magnesia & so on, which substances act beneficially in some states of diseases are used accordingly and "although the mineral springs and hot springs etc. may do good" says Parkes "in certain diseased conditions, yet we must deny their being used by healthy persons constantly. The purest water that we can procure, except by distillation, contains foreign in greater or less quantities. Thus a certain amount of organic matter is always present and the Carbonate & Sulph of Lime & Carb & Sulph of magnesia, Chloride of Sodium, Carb & Sulph of Soda, Iron &c. may be and generally are present in varying amounts, and indeed some of these as Carb. of Lime & Soda,

may exist in very large amounts & be used for years without apparent injury, but the Sulph of Magnesia & Soda are prejudicial in much smaller quantities"
"at the Sanitary Congress held at Brussels in 1853. it was decided that the total amount of Solids ought not to exceed 60 grs per gallon and the same rule had been previously laid down in France. but" as Parkes says" these statements are of little value since the different salts differ so much in their action on the system"
yet later observations still, seem to confirm this as being a good rule on the whole and it is to be used when only a rough estimate, as that which we would be generally called on to make, is wanted - exceptions of course coming in.

Organic matters when they exceed 1.5 grs per gallon are prejudicial to health & should if possible be removed - Of course anything in the form of an animal excrete renders water dangerous by its presence and such water should be at least boiled before using - The presence of any gas with the exception of oxygen nitrogen & a little Carbonic acid gas is injurious - The gases normally present exist about as follows - Nitrogen 6 cu. in per gallon - Oxygen 2.5 cu. in per gal. Carbon dioxide 5 to 7 cu in per gallon We see then what should be the quality of good water - Now what is the quantity required? The exact amount of water taken by an adult man is on an average of about ½ of a fluid ounce for each pound avoir.

Therefore 6 to 8 pints would be required by an adult weighing the average weight. Of course allowance is to be made for extra exercise or work, when there is greater loss of water from the organism than when in quiescent state, & it is important that this loss should be sustained as exhaustion of the vital powers very soon follows diminution of water -

The supply of water for cleansing the person clothing & habitations is a matter of import & for these purposes according to observation, each person should have from 50 up to 150 gallons per. diem - & though much less might answer the purpose as to the necessity, yet health is to be kept up abundantly & not stinted - The manner of storing water in reservoirs & conveying it is also

of importance - for in reservoirs filth is apt to accumulate by the settling of the different supplies introduced & thus exist in quantities sufficient to affect the health. The conveyance of water through lead pipes is sometimes an occasion of danger, particularly when the water stands regularly for some time before being drawn, for by this means sufficient lead is taken up by the water to produce evil results. The test for such material being the simple sulphuretted hydrogen or Iodide of Potassium test for lead as ordinarily used in the laboratory. Very much that is useful and interesting might be said in this connection but the place only allows of the principal

points connected with it so thus far we will have to be satisfied, for to go deeper would lead to the careful microscopical & chemical examinations of water which form for themselves material for volumes & not appropriate in this elementary discourse.

Closely allied to & coming under the same heading with air & water is food - Here is a vast field laid before us - one equally as important as it is extensive & one requiring severally the Chemist, Microscopist with a vast deal of observation, to treat it as it deserves - The number & variety of the different articles of food is of course very great "but says Parkes" the doctrine held at present by most physiologists maybe

expressed in the briefest way as follows:-
"Following the original deduction of Prout, it is believed that for perfect nutrition, certain quantities of four great classes of aliments must be taken - these four classes being viz -
-1- Nitrogenous substances or albuminates (including, albumen, fibrin, casein, haematoglobulin, gluten &c) which all contain also sulphur & phosphorus - 2 - Fatty substances (including all animal & vegetable oils)
-3- Carbo-Hydrates (including all starches, sugar, pectin and allied substances - 4- Salts - (Potash, soda, magnesia, lime, iron chlorine phosphorus fluorine & water). Three of these classes are indispensable viz - albuminates, fats & salts, with water & as Ludwig remarks - "the carbo hydrates are

sought after so eagerly & are so universally taken that it is probable no diet can be considered perfect without it - The so-called accessory foods or condiments are non-essential and are important only as improving digestion by their mechanical action - The albuminates nourish all the tissues which give rise to mechanical force of any kind & the lessening of their supply, necessarily leads to the diminution of force - affecting the muscular system, voluntary & involuntary including the heart, first, & afterwards the mental powers - death supervening finally - although this latter may be warded off for a short time by the liberal administration of the other classes - but the result must come - The fatty substance are

like the former to an extent, that is both plastic & heat giving - being essential both to the formation of muscular & nervous tissues, principally the latter - & they are intimately connected with the albuminates in the foods in general use. The starches & sugars are supposed to be heat giving in their action & are therefore rather respiratory not plastic. The salts and waters are as essential as the nitrogenous aliments - In fact lime & water being present in every tissue, must necessarily be resupplied when used up & it is very probable that no cell growth could go on without them - The other salts, as Potash & Soda together with those that form Carbonates, as lactates, tartrates, citrates &c all play important parts - the potash seeming

to be the alkali for the formed tissues as blood, cells &c, while soda & its salts ex ist in the intercellular fluids which bathe the tissues & assist in the process of osmosis -

These are the general principles upon which the quality of the diet should be based - Now as to the quantity? It is not possible to determine, a priori, how much any individual in particular may require - as there is much difference in this regard. We have to take into consideration his the activity, & bodily & mental powers of each person - the digestibility of food - the size & composition of the body, whether bone muscle or fat predominates - Now the regulations of the British army, allow

that each man takes under ordinary conditions of health & performing a moderate amount of work at least from 1/25th to 1/20th of his own weight in solid & liquid food per. diem, or on an average of from 34 to 36 ounces of solid & from 55 to 80 of liquid food - But as all the so-called solid food, is composed in a great part of water, when we reduce the food to the actual solid & liquid varieties, we will have N 22 to 23 ounces of solid & from 60 to 90 liquid - More of one kind than and the will of course be taken - For instance according to Parkes "he requires Nitrogen about 250 to 300 grs., Carbon 3500 to 5000, Salts (Comprising all the varieties, Soda predominating, with Chlorine, Phosphoric acid and a few others coming next in

importance in the order mentioned) says "The form in which these elements exist is of great importance" says the same authority - "& it would appear therefore that the physical condition of the food is second only in importance to its adequate chemical composition & is therefore of the greatest importance to calculate the amount of the fundamental dietetic principles needed - The following is a table as found in Parkes, taken from Moleschott, whom he considers "the greatest authority at present on this point" -

	1oz = 437.5810
Albuminous substances	4.58+
Fatty "	2.96+
Carbo-hydrates	14.26+
Salts (all kinds)	1.05.
Water	98.58+

Fat Meat, and then, oatmeal, peas, eggs, cheese containing the largest amount of albuminates, Fat & starch - potatoes containing large proportion of salts & butter a large amount of Fats - and sugar, oatmeal, rice & bread containing the largest proportions of the carbo-hydrates, with milk, cabbage, carrots, turnips & bread containing varying amounts of these different articles - although these are often articles of a dietary diet & consequently not so diversified as that generally found, yet we have here the principal articles of the different varieties of our food - & we can consequently make a close calculation from these, without the necessity of our tabulating our whole market - do unmarried before, when

a person is doing an unusual amount of work either physically or mentally, the amount of food must necessarily be increased & on the contrary when sick, it must be diminished to an extent, from the fact that in this condition the vital forces not acting with their usual vim less waste is caused & therefore less repair needed. But in cases of exhausting diseases & where there is a great drain from the system, this must be made up by the administration of those articles which are most nutritious & at the same time most easy of digestion = According to Beaumont's observations, he found that "as a rule animal food digested sooner than farinaceous & in proportion to its mumdeness of division and tenderness of fibre - In sickness also

it is advisable to withhold certain articles as sugar in diabetes insipidus, whilst in others certain articles should be increased - as the fatore in Phthisis - with many more such examples - By a knowledge of the foregoing rules we can regulate the diet with almost scientific accuracy There are many diseases ~~brought~~ introduced through the food - arising either from its excess, deficiency, indigestibility, non-assimilation, impunity etc - all of which though interesting ~~are~~ fall rather under the province of pathology & will be omitted here - Cooking is a subject which has importance attached to it, from the fact that by this means certain conditions of hardness, with various other conditions common to vegetables which render them unfit

for food - are taken away - thus rendering them digestible; and the process of seasoning the various aliments, assists in their digestibility besides rendering them more palatable - Of late years, the inspection of meats has become a very useful custom, in a sanitary point of view - and the microscope has through this means warded off, no doubt, many diseases, that would otherwise been introduced - which diseases are not only generally deadly in their results but also epidemic in their existence - Although sufficient quantities and the requisite qualities of air, water & food, are important, in fact, absolutely essential for the animal organisms - yet there are other elements, which although they may

be withdrawn to a degree, without causing death, immediately, yet the evil influence of their absence is so strong that vitality put to its lowest ebb & the slightest disorder may be able to extinguish the remaining spark - I refer to Exercise & Sunlight & to a degree also, the clothing - Just a word about this latter - No special rule can be laid down absolutely regulating the amount &c of the clothing - the feelings of the individual himself are to be consulted - and all should be regulated by them, with exceptional cases - The season of course being clothed according to the season, & at all times comfortably - woollen material being the better, as is well understood by all, for under wear, whilst some lighter ma-

-terial should be used in summer - Color has much, also, to do with the efficacy of clothing in its protection from heat or cold - Thus it is very well understood by many outside the profession, that dark colors from their powers of absorption & retention of heat are best adapted for cold weather and the reverse in the case of light colors - The familiar experiments of placing differently colored fabrics on the snow, and noting the difference in the degree of melting, is sufficient to satisfy even the most skeptical - It sometimes happens that a person may be wearing clothing that is absolutely injurious to him without his knowledge - Thus the wearing of rubber or any such material next the skin, has been proved to be absolutely

deleterious to health & even where there is not over a certain quantity of woollen material between the skin & and clothing bad results are likely to follow, when such material is worn continually - Recognizing these facts, both the English & French have abolished rubber clothing from their armies, to a great extent & when it is worn it is only for a short time & then only in the most inclement weather or some such exceptional case. In regard to Exercise, we are all familiar with the fact of its great importance to our health - and this fact is simple indeed The term Exercise, used in its narrower sense simply means, the action of the voluntary muscles - This action, though not absolutely, immediately essential

to the exercise of other organs, is yet lastly important & indeed in the long run, is really necessary for the perfect exercise of all organs with perhaps the exception of the brain. Not only the circulation of the blood, but its formation & its destruction are profoundly influenced by the movements of the voluntary muscles, in a word, a perfect state of health implies that every organ has its due share of exercise, if this is deficient, nutrition suffers, the organs lessen in size & eventually more or less degenerate. If on the other hand it be excessive, nutrition is at first apparently vigorous, becomes at last abnormal & in many cases a degeneration occurs. What are the immediate effects of exercise? It increases the vitality of the body. The lungs are strengthened to do their

work more promptly & perfectly. The heart & great vessels are increased in tone & from this, greater force & frequency of the heart's action follows - & the blood being thus thrown more rapidly to the tissues, the metamorphosis goes on more rapidly. The exhalant functions of the skin increase, the muscles grow & become harder, the digestive system is awakened, digestion going on more perfectly & rapidly - a greater amount of force being obtained from a given quantity of aliment than when in a quiescent state, in a word as said above, every organ in the body is in a higher state of vitality & consequently enabled to resist depressing influences with much less strain than otherwise.

Regarding the amount of exercise, this varies with the person, but a good rule to be

applied here is that which was applied when speaking of clothing - viz - let the person's feelings be the standpoint - let exercise be discontinued as soon as fatigue sets in, for going beyond this point, is transcending the bounds of health - Of the various modes of exercising? - we may leave these likewise to prudent judgement, but one point must be always borne in mind & that is, if possible see that such exercise be it what it may, be taken in the sunlight for indeed it is here that exercise is most efficient - it is here that it can only be properly taken. - The effects of exercise & sunlight being so intimate in their relations, nay I may be permitted to say so inseperable, that the one is included in the other - But what is this

Sunlight? It is nothing more nor less than the primary source of all force & consequently of all life, animal & vegetable - or, in the eloquent words of Dr. David Brewster, "light is the very life blood of nature without which everything in nature would fade & perish utterly." "Every one admits" says another authority "the necessity of a full exposure to the light of day, to insure a vigorous & healthy growth, in almost all plants, that they become bleached & withered without the contact of the rays of the sun. So, we have to admit the same for animals as plants. Without light the mother coloring principle in the body, the haematoglobulin is rendered pale. Now the intensity of the red color of the liver has been demonstrated to be owing to the

quantity of oxygen they contain - & as their nutritive functions of the body depend upon this oxygen, the vital importance of an abundance of sunlight is evident. The quantity should be unlimited - as there is no exception to the rule "that we can never receive too much". Of all the laws of Hygiene easy of practical application, this holds the first place - as it is within the reach of all as regards both quantity & cost. Of the quality, this can only be as it always was & ever will be. The same - the sunlight never changing. Even in relation to a subject so simple of comprehension & easy of application - we are sorry to say much ignorance exists. & many misapplications, so to speak are made of it - misapplications not in the ety-

mological sense of the term, but rather in that of non-application - Nay, and this is wide spread - we see it in our very city & not far from our individual residences - Look at our various large commercial houses - what is their construction? - Generally we find them long narrow houses to the back portions of which the sun never penetrates - Day after day, for years in a room lighted continually by some form of artificial light - are congregated a number of persons, who in their very occupations are applying to themselves the seeds of death - Can any one have hopes for a long life when he is ~~they are~~ thus taking away, some of the most important elements thereof, including coming from commercial circles to

that of the family - we see the same conditions existing - Houses are constructed in a manner so to be deleterious in this regard - & if the house itself is not at fault the mistress thereof is - She would protect her fine furniture by heavy blinds, & thus ruin herself - It is the recognition of points such as these - and careful attention to their regulation - that much good may ensue & great evil be avoided -

Of late much interest has been created in regard to the action of variously colored lights - or rather glasses - and the experiments in this regard that have been performed in Germany on animals would show that certain colored lights are superior to others - Thus litters of pigs have been divided - one portion being put in pens covered with blue & another with yellow glass to or on & it has been found that those placed

under the blue glass - have thrived better & grown more rapidly than the rest. In our own country attention has been given to the matter and the reported results to have been such, that if what is reported be true, the matter is certainly one deserving investigation - for it not only could be made a powerful agent in the prevention but also in the cure of disease - Without for one moment attempting a confirmation of what I have seen written on the subject - I would say, that to me it appears to carry with a some degree of plausibility - It is a well established fact, that light exercises a marked influence on certain chemical compounds - producing changes, totally inexplicable by chemists, in them - Thus certain drugs are have to be kept either in black, or colored bottles - Now the human body is a mass of chemical,

compounds, & we know that white light produces certain effects upon them, which although we see them, yet no definite, accurate, explanation can be given for them - May it not then happen that each of the elements that go to make up the compound, white light, may produce effects, which differ from those produced by their combination? This is certainly very plausible, as we see something analogical to it, daily in our study of the effects of medicines & their combinations - This might then account for at least something of what has been said to have been produced by these various colored lights - But, further than this, simply, analogy - no explanation can be offered - Yet it behooves us not to look upon this theory with distrust, but giving it credence as far as it deserves wait the results of further investigations -

There is another class of influences that have

a peculiar & intimate bearing on the workings of the organism, in its normal & abnormal state - I refer to those of the Mind - Can the mind influence the functions of the body? "Observe" says "Mandsley "how fear strikes the heart, & what anxious fear & apprehension accompany some affections of the heart" Anger & disappointment & envy notably touch the liver; which in its turn, when deranged, engenders a gloomy tone of mind through which all things have a malignant look & from which when philosophy fails to free us the restoration of its functions will yield instant relief" - The internal organs are plainly not the agents of their special functions only but by reason of the intimate consent or sympathy of functions, they are essential constituents of our mental life - To take an example or two from our daily concourse; - observe a man in business

see how his system is affected by his occupation - He meets with a heavy loss, following are all the usual troubles, concerning settlements etc - night after night is spent in anxiety - and at last he is stricken with diabetes or some such disease - a common example - Again observe the effects produced by mental shock to a female particularly when she is passing through her catamenial periods - The daily routine of the Physician is replete with examples of this sort - and good results obtained by them for the relief of such diseases - by not by medicine so much as remedies to the mental conditions, is confirmatory of this - "Can it be doubted, too, that the strong belief that a bodily disorder will be cured by some appliance

itself independent of food or harm, may so affect beneficially the condition of the part as to affect a cure. "To me it seems not unreasonable" says Maudsley "to suppose that the mind may stamp its tone, if not its very features on the individual elements of the body, inspiring them with hope & energy, or infecting them with despair & feebleness". Ceremonies charms, gesticulations amulets and the like, have in all ages & among all nations been greatly esteemed & largely used in the treatment of disease; & it may be speciously presumed that they derived their power, not from any contact with the supernatural, but, as Bacon observes, "by strengthening & exalting the imagination of him who used them". That

the mental & organic functions are inti-
mately connected. the one influencing the
other is beyond all question, but the me=
chanism, by which these mental influen=
ces produces their effects, is a subject
which defies our observation - Exerting
its influences in a way immaterial in
itself, thus giving us no foundation to work
upon, the mental process will we fear be
ever to man wrapped in a mist impen=
etrable - Habit, also has a great in=
fluence upon the workings of the organ=
ism - Composed as it is, of factors differ=
ing in their natures, it stamps the organ=
ism in a manner peculiar to itself -
& almost indelible in its influence = con=
sequently due consideration must be given
to its power, when in the direction of hygienic

rules - Thus we have, in order, gone over some of the principal elements in the construction of a few rules for the regulation of health - Circumstances, forbid anything more than this, a superficial glance, at a few, leaving many untouched, points, yet we hope even in this much to have gained at least something, & bearing in mind our remark at starting - "that having this as a foundation", by time experience and assiduity to build slowly & solidly, ever keeping before us, & adopting as our standard - the wise and applicable motto -

"Festina Lente"
quia
"Labor Omnia Vincit."

L. Ignatius Turner

An
Inaugural Dissertation
On
The Report of Six Cases
Respectfully Submitted
To The
Provost Regents and Faculty
Of Physic
Of The University of Maryland
For The Degree
Of
Doctor of Medicine
By
A. C. Lowe
Of
St. Michaels Md
Session 77

Aneurism of Aorta

Saml. Johnston a Negro man came into the Hospital Jan. 17th 77. When first seen he was very feeble. Had a hoarse Croupy cough, slight fever, and, suffering from dyspnoea. There was no diagnosis made, but supposed cavity in right lung. He suddenly grew worse, and finally became unconscious, and died on Jan. 20th. Post Mortem revealed results of auold pleuritic effusion in the right pleural cavity. The lung was bound down by fibrous adhesions throughout entire walls of chest. The lung also adhered tightly to the Diaphragm. The results of a former Pericarditis

was shown by the Pericardium tightly adhering to walls of the heart. On cutting into the apex of right lung small cavities were found through entire lobe, both lungs were emphysematous Chronic Bronchitis in both Bronchi, and on examining the Aorta a large Aneurism was found below the <u>Arch</u>. Specimen carried to Prof. Shew, and he stated that it was impossible to diagnos Aneurism, for the tumor was situated behind the heart in such a position that the intervening organs obstructed the sounds. Death caused by pressure on trachea

Typhoid Fever

Thos James a negro man about 20 years old entered the Hospital on, Nov 29th 76. On examination by Dr. Ashby, the disease was pronounced Typhoid Fever. When first seen He had high fever, Temp 104° pulse 140. Resp 40. Gurgling murmurs heard over right illiac region. Marked delirium of a low muttering character, tenderness on pressure, and small rose colored spots over the abdomen. Sordes covered his mouth and gums. In the evening his temperature was reduced to 103° pulse 140 Resp. 40. He could take no medicine or nourishment. The delirium of the morning having

passed into coma such profound coma that it was impossible to give him either stimulants or nourishment. Nov. 30th The thermometer showed a very much lower temp. 100° pulse 130 Resp. 40 could perceive no change in appearance from previous day his temp. continued to fall one degree daily with pulse and Respiration hurried. He continued to fail until Dec. 3rd. He died temperature before death below normal Post Mortem made and specimens carried to Prof. McPherry and he found the Mesentery largely swollen and a number of Ulcer

ated Peyer's patches with perfora-
tion in several places, also found
intussusception of the ileum two
inches below the ileo-caecal
valve. The patient had been
sick (3) three weeks before entering
the hospital and was in such
a condition that it was impos-
sible to save life

Fever - Malaria Fever

John Smith came into the hospital on April 26th complaining of loss of appetite and considerable weakness, and very high fever temperature 104°. Pulse 98. Resp. 20 grs XX of Sulph. Quinia. Beef tea and milk was the treatment. April 27th A. M. his Temp. 100°. Pulse - 110 Resp - 30. Had one evacuation the overnight - causing tenesmus. No appetite pulse quick but feeble - P. M. Temp. 101°. Pulse 90. Resp. 20 No marked difference in his condition treatment Quinia gr v ter die April 28th 1 A. M. temp 99 pulse 90. Resp. 25, complaining of No appetite. Pain in right

Iliac-region, took Quinia gro XX
Night of 27th. A. M. temp 101, Pulse
90, Resp, 25 Bowels in good con-
dition, and feeling better than
at any previous time April
29th A. M. temp 103, Pulse 90
Resp, 25 perspired freely, Costive
Skin Moist, took at bed time
last night Quinia Gr XV
P. M. Condition same except
a higher temp, 104 pulse 90
Resp 30 April 30 pronounced
worse with the exception of a
lower temp 102 Pulse 98, Resp-
30 Dr. Ashby gave him a dose
of Castor Oil and he had
six passages the night befor

The dr. also ordered Dunia ~~for~~ to reduced the temp 2 degrees being 102. Pulse 100 Resp 30 Had 2 watery passages during the day. A Gargle for sore throat consisting of Chlorate of Pot. and water. Still taking 15 grs of Dunia to die Impossible to keep nourishment on his stomach May 1st. temp 98 Pulse 100 Resp 30 Vomiting so profuse that 4 gts of Creasote in lime water was giving causing a burning sensation P. M. Temp 101 Pulse 110 Resp 30. Featment ℥ss Whiskey in milk, also x 0. grs of Dunia at bed time a small Mustard

Blister applied over stomach
May 2nd temp 102° Pulse 120
Resp 30. Had six passages which
consisted of blood and water
slept a portion of night, and
taken with Typho-Malarial-
dysentery. 5 P.M. temp 102 Pulse
120 Resp 30 Condition same as morn-
ing treatment same as morning
with exception of andinjection
of Laudanum ℥i to starch
water ℥ii and tinct Krameria
℥i internally pro re-nata
May 3rd temp. 101 pulse 118 Resp 30
very little change, had two bloody
passages, and considerable flatus
thrown off during night, took

Ipecac grs XX P.M. Temp 101 –
Pulse 118 Resp 32 Bloody stools
and very irritable stomach
together with vomiting Treat –
Ipecac gr 6. ter die, Stimulants
and Nourishment, May 4th temp
101° Pulse 120 Resp 30 Could
sleep but very little during
the night. Sleeplness attributed
to difficult breathing, sore
throat, and expectorated bth
little during his repeated cough –
ing, Stools still bloody, the
irritability of his stomach
prohibited him from taking
his milk and whiskey treat
ment Carb. Amonia grs X Every

four hours. P. M. temp 107 Pulse 138. Resp. 35 - No Change in symptoms treat - Same as Morning May 5th P. M. No Change for the better, Succeeded in taken his beef tea, milk, and whiskey unable to retain his Carb. of Amonia, Treatment Beef tea Carb. Amonia, and Whiskey, May 6th Died at 10 minutes to 6 o Clock. Post Mortem Showed a number of ulcerated Peyer's patches and inlarged Mesentery. An ulcer as large as a nickle, Intussusception of Ileum in its upper portion,

Flap Amputation of Leg.

John Carrier, Came into the hospital Jan 2nd. with both feet frozen, he was allowed to remain quiet with no treatment, but, Carbolized Oil until Feb 2nd the line of demarcation was plainly shown on that day he was brought into the amphitheater for amputation, After Eatherizing John Prof Tiffany applied Esmarches bandage, amputated the leg through the lower third by lateral flap composed principally of skin and divided the muscles with a circular incision a short distance above, After putting a drainage tube through

the wound. The patient was placed in his bed with the limb Elevated. After a few days the wound began to heal by second intention and discharged pus freely. The wound was washed out twice daily with Carbolized water and lint saturated with Carbolized Oil was applied to the stump. He had no irritative fever at any time. Nor did his temperature rise above normal on Feb. 19th the wound has almost intirely Ceased to suppurate and the flaps are ~~healed the~~ healed with the Exception of

a small aperture through which the drainage tube passes, and the patient looks forward to a similar amputation on the remaining leg with less fear, and hopes in a few months to leave the hospital in perfect health but minus both legs,

Pleuritis

J. S. came into the hospital about the middle of Jan. Prof Chew Examining him and pronounced the Disease pneumonia invading the entire lower lobe of right lung. Under judicious treatment he passed through the successive stages, and the lung cleared up beautifully. But after he was pronounced convalescent, he showed signs of relapse, He was again carefully examined by Prof Chew and found a pleuritic effusion in the right pleural but not sufficient in quantity to justify aspiration

The patient continued on in this condition, the fluid gradually increasing, breathing becoming less and less easy, dullness becoming more and more marked, Prof. Chew stated that it would be necessary to aspirate if the effusion continued to increase so rapidly. Turpentine stupes were applied to the affected side. Iron was given and of no avail, on the day before Prof. Chew expected to aspirate the patient, he called to examine the patient and found to his surprise

that the patient had thrown
of the Contents of pleural
Cavity. The serum was mix-
ed with mucus and pus, was
Considerable in quanity
over three quarts was collect-
ed. Prof Chew stated that
he could see but one way
by which it Could happen,
was that perferation of the
pleural in imediate Contact
with one of the smaller
Bronchial tubes, And by the
perferation a passage was
made directly through to the
trachea making its exit through
the mouth. This unexpected

result did not make any material change for the worse, and relieved the dyspnoea, permitted the sufferer to rest quietly and comfortable, It has now been 3 or 4 weeks and the patient is continuing to improve daily and anticipates leaving the hospital in comparatively a short time

Abortion

Jane Thomas came into the Hospital on 12th Jan Prof Chew saw her and found the entire lung on right side engorged Pneumonia involving the lung to a very great extent the woman was pregnant He feared serious consequences knowing the frequency of abortion in pneumonia At no time did her temperature rise above 103 after careful treatment. She hastily passed through the stages and in a few days convalescent shortly after leaving her bed

She was again taken and her temperature soon a rose far above its former highest point Again Prof. Chew saw her and pronounced pneumonia of of Both lungs, put her on treatment strictly forbidding Dunia on account of its tendency to produce abortion, But with all his care, and watchfulness to prevent what we all feared would be fatal, She aborted with comparatively little pain, The Child was in seventh months of uterine life imediatly after abortion

We could see a marked change in the mother she grew better and daily improved, the Child lived 48 hours

Gentlemen submitting the report of these cases, which came directly before me during my stay in the Hospital as resident student. It is my wish to say had I written a Thesis on any one subject I would have been unjust to my self as a student, and unjust to you as teachers. It shows to you Gentlemen as well as the student the advantages of your Hospital

The motive which prompted me to report six cases reminds me of many more indelibly stamped where Theory cannot

An Inaugural Thesis
upon
The Proximate Causes of "Phthisis",
Respectfully submitted
to
The Provost, Regents and Faculty
of Physic,
University of Maryland
for the degree
of
Doctor of Medicine,
by
Luther B. Wilson, A.B.

March 1st 1877.

Probably no subject within the whole range of medicine, calls for more constant attention at the hands of practitioners than does Phthisis Pulmonalis and as is natural from this fact, probably no questions furnish wider field for speculation than those concerning its precise nature and cause.

If we for a moment consider how great are the authorities who have placed their views before the profession and how differently they have seemed to see the same facts from their respective standpoints, we shall I think appreciate somewhat, the obscurity which

surrounds so many points in regard to this affection.

While this however is true, and while in the course of some discussions, men have been separated and schools established, modern pathologists seem to have more comprehensively investigated the intricacies of the problem and have given to men of less brilliant genius the light which may guide them in their theories and practice, and it is to some of the more modern views in reference to the causes we would call attention.

First then in the consideration of our theme, let us

look at the probable cause of Phthisis and see the relation to it of tubercle. — This term (tubercle) while formerly comprehending both yellow and gray is now restricted to the miliary form, occurring as nodular masses in the form and about the size of millet seeds, the larger masses being mere agglomerations of these smaller masses. Concerning the substance of the deposit there is nothing peculiar, its distinctive characteristics being merely its size and appearance.

Without considering this matter however, per se, let us look to its relations and first as to its mode

of occurrence.
As regard to the deposition of tubercle, we see that it does not when recurring, uniformly diffuse itself throughout the system, but we may have its appearance in the lungs, mesenteric glands, intestinal tract, brain, heart and in fact in almost any part of the organism.
Now this being correct and as we can attribute its existence in one or another organ to no discriminative elective affinity, we must consider that ordinarily there are points of attack in every individual less than others able to withstand the incursion of morbific deposit and

that such comparative degeneration or weakness in function or structure, determines the location of the disease. Not only however is it true that tubercle may be deposited in different positions under different circumstances, but in point of fact this difference does take place, as the individual is subjected to the influence of age.

From Rilliet and Barthez we have tables carefully prepared, showing that in infancy, tubercle is much more general in its attack than in later years, i.e. that it is much less discriminative as to its seat.

Such a fact as this, must be consid-

ered of no slight importance in our investigations, as it leads to several deductions worthy of our notice.
In all periods of life, the ideal office of nature is to adapt the mechanism of the body to the function to be performed, and with each necessity to develop a means of supply, but in this as in other cases nature may be defective or, as, is by far of more frequent occurrence the defect is in the external factors of the essential processes rather than in the internal factors.
Apply this idea to the facts in question and we shall I think, find it verified.

Here in infancy as in age we have the most medal occurrence of tubercle in the pulmonary tissues, but what are the external factors here? In both infant and adult life, we generally find either exposure to atmospheric changes in regard to heat and moisture, or life is attempted in an atmosphere whose impurities unfit it for the purposes of respiration. In the intestinal tract ~~tract~~ we ~~xxxx~~ have a different proportional occurrence in infancy and adult life. - In this class of cases the impressibility of the tract in early life makes itself manifest upon apparently the most trivial

causes. If then a continuous application of such causes lay the heart open to such affection we have only a repetition of a constant accident.

With adults, while derangements of digestion very frequently produce malnutrition, yet such is not ordinarily so severe relatively, as to produce this extreme liability to secondary affection in this particular position.

If we compare adult and infant cases in which complication of other organs takes place, we find the most marked difference, due without doubt to the extreme impressibility in childhood of the nervous

and glandular systems.
Considering that Rilliet and Barthez are correct in their statements we most undoubtedly have the constitution of Phthisis as at least a coincident with the exponents of advance external factors.
If invariably we fail to appreciate the presence of tubercle primarily and if the development of local inflammation is frequently followed by the deposition of tubercle it seems to me, not a mere unconnected succession of events, but I can conceive of no other idea than that of their relation as cause and effect.

Very pertinently however it may be asked, — If such a relation exists, how does it happen that not always have we this sequence from the primary affection? In answer, it may be said that the organ, in which this secondary condition is effected, is prepared for such a change by reason of a lowered vitality and that otherwise such would not occur. We can in part at least understand how circumstances may determine this, and how, upon the application of a sufficient exciting cause, those processes which are usual and continuous consequences ordinarily may

degenerate and thus produce the systemic impression.

Having thus briefly examined into the relation between tubercle and some of its concomitants, let us consider the most important causes of the disease and we shall commence with hereditary predisposition.

In regard to Phthisis Pulmonalis there can be no doubt as to its more or less frequent recurrence in families. This can not be denied as examples are furnished every day and yet although the theory of direct transmission has been maintained for many years I do not think the doctrine tenable. — Certainly its

truth can not be established from the mere succession as to time.
I have observed with reference to other abnormal conditions a similar phenomenal element.
For example, I would call attention to irregularities in digestion, in menstruation & in nervous excitability which we constantly observe to occur in some families more than in others, although perhaps all surrounded by the same general circumstances, and without multiplying examples I would urge the fact that physical peculiarities and mental idiosyncracies of every variety are seen more or less clearly to follow

from generation to generation.
If now we fail to appreciate the existence of an assumed creative principle in Phthisis we have as it seems to me about the same ground for supposing the one as the other of these affections due to direct transmission, — That all are, is a position, which one would hardly care to take.
Apart from distinct blood diseases, so called, I understand hereditary predisposition to occur in but a single way. —
Progeny born of consumptive parents are, as we should suppose, weak and delicate. Owing to the lowered vitality

of the parent, as the same blood has coursed through both, the infant is also to a greater or less degree debilitated, nor is it difficult to conceive how, under such circumstances, and in the performance of a new function the lungs should be particularly sensitive. — Not that Phthisis has been inherited but only that the weakness consequent upon the conditions of birth have created a susceptibility to those causes which in the mother found their expression in Consumption.

Considering with what rapidity the life of children goes on; considering the functional activities which

in them seem incapable of weariness, it is not difficult to understand how amid such circumstances, speedy death may occur from Phthisis, nor how impressions thus made, may break the harmony in systemic action, thus laying the foundation for future trouble. Suppose however that not the mother but the father be affected with the disease, there is then not so strong a probability of its recurrence in the offspring as in the former case.

Without question if the father is affected at the time of conception and especially if the mother be herself not strong and robust we may have the Phthisic, but if the mother be

really in good health then I should consider the predisposition in the child as at a minimum.
Apart however from the influence of parentage per se, there is a cause which even, at the present day sees in gigantic proportions, and in defiance of sanitary science proclaims itself the author of disease incalculable, holding all men as subjects.
This lesson is mal hygeine, and its influence begins with birth.
If we continue the consideration of those born under unfavorable circumstances we find frequently the result of false inferences.
When for example a child is born

from a diseased mother it is ~~regard~~ed as too debilitating for her to suckle the infant, and this, though perhaps perfectly correct in some few instances, is in the great majority of cases partially false, as for the most part the mother may without serious consequences perform the functions of her office for a time. Nature intends that the mothers milk shall be the infants food, if however, upon the withdrawal of the maternal supply, in view of dreaded and perhaps real dangers, some perfect substitute were provided we should avert those evil consequences which are sure to ensue upon neglect

of this.

Many ~~[illegible]~~ are thus prevented either from inability to bear the expense or from ill founded fears that a suitable wet nurse is not to be provided and instead of this adopt the plan of raising by hand.

If in regard to the success of such a method we consult statistics we shall find them full of significant facts.

In the records of foundling hospitals and other institutions, in which the experiment has been conducted therefore on the largest scale it appears that wherever artificial food has been provided, the mortality

has been enormous, frequently three fourths dying within the first year. While of those who for a time have escaped fatal disease, the great majority during this time have acquired conditions favoring the development of future attacks; Compare with such a result, that which is observed among those nourished by wet nurses and we are struck at once with the vast disproportion.

When then in a child said to be born of consumptive parents, and the gradual development of consumption is claimed in evidence of direct transmission, whose judgment is to dissect out truth, & whose acumen

is to decide which circumstances are creative and which only modifying?

But mal hygeine does not only thus exercise its influence, during the first period of life: it may at any subsequent time give rise to Phthisis.—

The principle of these errors are in regard to the amount of air and sunlight which are essential to health and they are constantly carried into the construction of buildings which, (buildings) afford an insufficient supply of both of these important elements.

Children are placed at schools

during those hours of the day, in which most especially the development of muscle should be favored by suitable exercise in the open air.

These schools being built upon plans looking more to economy of material than to the health of those who are to be instructed, generally impress upon the physical organism harm much greater in amount than the improvement accruing to the mind.

We know that if a plant be excluded from the direct rays of the sun for a certain length of time, that it gradually loses color and finally

dies, – With man the facts are precisely similar and this constant confinement must work upon these the same effects as those produced in the lower order of life.

To the matter of ventilation, again, too little attention is paid by us. According to the latest investigators into the subject it is stated that for perfect health in an adult 2000 cubic feet of pure air are needed per hour, but as a fact the quantity allowed in schools, and in other buildings, as a general rule does not equal the tenth part of this amount. We are compelled to breathe and rebreathe the air

which has been vitiated until it becomes a direct poison to every tissue and yet we expect in such an atmosphere to find health.

We are shocked perhaps when we hear of asphyxiation occurring to some poor unfortunate, and at the same time, in the greatest majority of instances even the highest, much more the lowest classes of society are undergoing precisely a similar process. "They have eyes, but they see not." —

In addition however to such changes in the atmosphere, as are produced by expired carbonic acid, there is another manner in which

the vitiation is produced by minute particles of matter thrown out from innumerable sources, which find a lodgement in the air passages even to the minute vesicles.

Foreign matter thus introduced acts precisely as does foreign matter brought in contact with any other subcutaneous tissue, i.e. as an irritant.— In those who work in factories or engage in other occupations in which these infinitesimal particles are thrown into the air, it is not the exception but the rule to find bronchial and pneumonic troubles; nor can such a fact occasion wonder when we reflect upon the

delicate and vascular structure of the lungs, and their consequent sensitiveness. This matter while it is not admitted as a cause of tubercle is and indeed must be considered as a most frequent cause of Phthisis.-

But such a condition may be also produced from the remains of Pneumonia or Bronchitis.-

Take a case in which Pneumonia has occurred and run through its primary stages, but in which resolution has not been perfected. Now in the most favorable of these ~~cases~~ cases in which Pneumonia ends, the exudation thrown out undergoes

a change in which its water is first absorbed; and consequently its individual elements shrink until entire disappearance takes place. Suppose however that from some defect in the economy this process be not completed, in these cases, the matter remaining, not capable of organization acts as a foreign matter as in the former case, and the same effect is produced. In Bronchitis we have the same conditions occurring as in Pneumonia with only the modifications which we should expect to find from the respective natures of the primary diseases.

But instead of such a regular disease, as the two we have just mentioned we may have an other variety.

Particular circumstances may combine, at a given point in the lung by which a rupture of one of the minute vessels takes place, and this without external manifestation occasioning hemorrhage.

This hemorrhage slight as it may perhaps be, is nevertheless frequently just the exciting cause necessary to such a sequence of events as constitute Phthisis.

Each of these causes in course of development may give rise to

caseous metamorphosis, a condition formerly supposed impossible except as a direct result of tubercular deposit.

—"—

In view then of many facts, some of which we have mentioned, may we not hope that some day shall be clearly developed the truth that Phthisis Pulmonalis never depends upon a specific independent cause but that when the so called tubercular nature of the disease be recognized, it be attributed simply to degeneration in inflammatory changes.

— " — " —

An
Inaugural Dissertation
on
Epilepsy
Submitted to the Examination
of the
Board of Regents & Faculty of Physic
for the
Degree of Doctor of Medicine
by
O. Tydings
1877

To

Prof F. Miles

This thesis is inscribed as a testimonial of respect for his private worth and high professional character.

And in grateful recollection of his professional precepts and example.

Epilepsy.

A chronic disease characterized by paroxysms of more or less frequency and severity with or without a loss of consciousness; and which may or may not be followed by slight spasms or partial or general convulsions or mental aberations or by all of these circumstances collectively.

Symptoms. These are exceedingly variable. In many cases a paroxysm occurs without any premonitions or it is of so short a duration that it may be considered a part of the paroxsm or even if it exist

the patient is unaware of it and it is not until his attention has been called to the fact by his physician that he takes any notice of them.

Sometimes the loss of consciousness is so sudden and complete that the patient can give no account whatever of ever having had a paroxysm and it is only through the agency of the friends of the unfortunate sufferer that we can obtain any information of the attacks

In these cases the paroxysms generally come on in the night

the patient passing through the different stages without being aware that he has had a fit; when he awakes he feels languid and weak or it may be that he is mentally deranged thereby inca pacitating him for the performance of his duties: It is in this form that we find it most intractable

Although in many cases there are no precursory phenomena it often happens that there are indications of an approaching attack. These vary in character and in situation.

They may consist of pain in the head vertigo giddiness flashes

of light dimness of vision, a peculiar smell, sensations of numbness or tingling of an indescribable character which beginning in any part of the body rapidly extend to the head. The prodromata may precede the attack for a considerable time but as I have already stated that it is generally of short duration

These symptoms has been called the "aura epileptica"

The French authors make two distinctions of the paroxysm The petit mal or slight attacks and the grand mal or severe seizures. The petit mal of the French

might be farther subdivided into the complete and incomplete or two forms of incomplete; "recognizing the grand mal as the complete."

One where slight convulsive movements accompany the lapse of consciousness and in the other being absent.

In the former: "the genuine petit mal" the patient is seized with giddiness often amid business or whilst engaged in conversation; he has time however to seat himself or he stagers and sinks slowly to the ground without outcry.

His face is pale and eyes fixed. A few convulsive twitches plays.

over his face; in a few minutes however he recovers. He may look wildly around but in a few moments he is ready to resume his occupation.

In the still milder; "the vertigo epileptique" the patient does not fall His consciousness is alone clouded; his eyes stare and his countenance is pale he does not twitch; but may drop any thing that he may have in his hands he halts in his speech. The attack passes off in a few seconds and the patient is ready to proceed with his conversation as if though nothing had transpired

There are many intermediate

steps between the petit mal and the attacks that I will describe next. The grand mal

This class of cases are by far the most frequent form and may be divided into four stages

1st That of general tonic convulsions generally preceded by a cry; in which the muscles become contracted The respiration is impeded, face livid, pupils dilated and the sensibility is abolished

The body is rigid, the carotids throb with force; the veins are distended and the body is drawn more to one side than to the other.

2nd Stage is that of general clonic.

convulsions the muscles are alternately contracted and relaxed the respiration is hurried and froth issues from the mouth.

The feces and urine may be ejected the face is still livid and the pupils taking part in the spasms are first contracted and then relaxed.

3rd Stage is characterized by a gradual return to consciousness in which the patient looks about and if asked no questions seldom speaks

4th Stage is that of stupor which may in some cases be absent or as reported by some authors that they have noted cases where

the intelligence becomes remarkable acute.— This stage lasts for a variable time from a half to some hours in which the patient sleeps heavily.

Many epileptic fits differ greatly from the typical seizure that I have described varying in duration, violence and in the extent of the convulsions While as a rule the patient is able to attend to his business the day of or after the fit there are many cases in which every attack or every severe one is followed by mental derangement and disorders of innervation.

Dr Miles told me of a case that occured in his private practice which was due to an organic affection of the brain; where while there was no loss of consciousness yet each attack was followed by an uncontrollable fit of anger It is often necessary to protect both patient and friends from violence to put on a straitjacket or even to confine in an insane asylum during the period of repose for fear that his madness will secur with his next paroxysm

It would be impossible to

furnish a concise account of the general course of the disease and the condition of the patient between the paroxysms

Diagnosis. This is at times exceedingly difficult and the only infallible point between this and some forms of hysteria and malingering "both of which at times simulate epilepsy" is the failure of the pupils to contract under the strongest light.

Although we are frequently at loss for facts upon which to base our diagnosis; yet in many cases we are able to trace the disease not only to the cause but with

some degree of accuracy to the probable seat of the lesion

There is a case attending the clinic of Prof Miles in which the aura "if we can so call it" consists of a smell of the most disgusting character; and he says that the seat of her affection is at or about the origin of the Olfactory Nerve

Another case attending his clinic whose speech is affected; he also has certain movements about the arm and leg on the right side of the body which precedes the attack I would like to ask if is not safe to say that his trouble is situated in the anterior convolution on the left

side about the island of Reil?

I have stated that it is a chronic disease. Hence cases in which one epileptic fit is not followed by another one ought not to be counted as epilepsy; but should rather be regarded as belonging to eclampsia a form of disease only distinguished from epilepsy by the acuteness of its course

The period of repose differ greatly in different individuals

In some patients a year or more elapse and in others months or weeks; while in others one or more seizures may occur daily

Sometimes three or four weeks

may intervene before an attack; this may be followed by a series of fits recuring at short intervalves As a general rule however the pause between the paroxysms in the same person remains nearly uniform. Although as the malady progresses the fits gradually come closer and closer together Perfect regularity is never seen except for a short time

In some persons the attacks are more frequent during the day; in others they occur chiefly at night.

There are no regular pathological lesions. but since the interruption

of function which takes place is both in sensibility and consciousness we may assume that the excitement of the motor nerves of which the convulsions are the exponents proceed from the Medulla Oblongata

This is shown by the interruption of the functions of the hemispheres which accompanies the convulsions; nor is it probable that the motor impulses proceed from the hemispheres at a time when the irritability of the other ganglionic cells and nerve fibres are extinguished

Schroder Vanderkolk has found that in all bodies of

epileptics where the disease had existed for a long time besides numerous inconstant lesions there was always a dilation of the arterioles and capillaries of the Medulla Oblongata with thickening of their walls.

This may well be questioned whether it is a cause or effect I think that we may safely say that it is both or that we may have for the starting point either in the hemispheres and extending to the Medulla; or in the Medulla, and extending to the hemispheres; or have for its starting point both

Owing to the scantiness of our knowledge as to the pathogency of epilepsy the statistics regarding its predisposing and exciting causes or of but secondary importance

We do not know of one single agent of which we can certainly predict that it will produce epilepsy; yet besides this we must admit that all the assinged causes of the disease by themselves are incapable of inducing it; and the cooperation of a second and unknown factor is always requisite

Statistics prove that it is a very common disease and

one which every practitioner must at some time in his professional career combat with; therefore it is incumbent upon us to make ourselves familiar with every point that will throw the slightest light upon the cause ~~course~~ and course so that we may be better fitted to treat it.

Females suffer from it somewhat more than males

There is no age which is completely exempt from it; but the young are more liable to it and particularly about the age of puberty

Hereditary predisposition plays an unmistakable part in

its production and by some authorities it is asserted that its existence is demonstrable in one third of the cases

This is especially apparent in persons descended from epileptic parents as well as in persons whose parents or ancestors have been insane or suffered from some mental affection or intemperance

In some families epilepsy affects many of its members throughout several generations. Sometimes skip one generation and the grandchildren are attacked

Every physician knows how

utterly unreliable the statements are as made by the patient or his friends from the desire to shield his family from the name of a malady so dreaded.

Drunkards, cachectic subjects and onanist are more liable to it than the healthy and vigorous althong the latter are by no means exempt

The chief of its exciting causes are violent mental emotions such as sudden fear or sorrow; disturbed menstrual functions and the sight of an epileptic fit

With regards the termination of epilepsy whilst I will not in

any given case give too favorable a prognosis; yet I must say with all due respect to some eminent authorities that recovery is by no means rare

No one would expect to cure a deformity due to Coxalgia nor would any intelligent physician expect to remove an organic affection of the brain; yet how many diseased conditions here as elsewhere are held under subjection by proper treatment.

This has been very forcible impressed upon me since I have been the assistant of Dr Miles

Many cases have I seen

improve while attending no clinic and although I cannot say with absolute certainty that they were cured; yet I can say that the paroxysms were stopped and that effectually for months, some of whom have left the clinic believing themselves cured while others still attend; although relieved of the fits.
Have you cured your patient when you have stopped the paroxysms?
To do this you confer a great boon upon the unfortunate sufferer but in all cases you have not
This fact was first made known to the profession by Dr Miles he says time and again has he had

under his care patients whose paroxysms were held under control. who were evidently sinking under the disease – A case is at present attending the clinic whose history is as follows

C O'Conner Age 22. Applied for treatment Jan 2nd 1876 Had been subject to epileptic fits for six years. When he applied was having two or three paroxysms every week, since his appearance at the clinic he has only had six paroxysms and these while not under treatment. The cause of his affection is masturbation In this case the fits are held

under control by the free use of Potassii Bromidum; yet it is evident that he is becoming mentally weaker and weaker, and sooner or later he must inevitably sink into a state of imbicility unless death comes to his relief.

Treatment. While the aura is proceeding from an extremity to the centre, frequently if the patient will compress the limb by a bandage or otherwise he will be able to abort the paroxism.

One is able at times to prevent its occurrence by bringing to bear his mental faculty

Prof Miles told me of a case

which occurred in his practice of a gentleman who when an attack was approaching if he was where he could walk briskly or cry out could generally stop the fit; but unfortunately this was not always the case and it was while in the society of others where from motives of delicacy that he felt constrained to keep his seat that this attacks run their full course.

Many cases could I cite where patients have different modes of effecting this end; almost every confirmed epileptic has some way by which he can stave off an attack. Chloroform is

highly recommended; a few inhalations of which if taken during the aura will cause a cessation of all symptoms This is indeed worthy of so much consideration that I would advise every patient to carry a bottle in his pocket. Amyl Nitrite is equally extoled by others but this I should think is too potent an agent to trust in the hands of patients who are generally affected with this disease

During the paroxysms almost all authorities agree that nothing can be done, some however recommend the use of Chloroform in this stage but its efficacy is

to be questioned. The essential element of a seizure of the severer type is impeded respiration and when the patient can inhale Chloroform the paroxysm for which it is given has past; if however a patient is having one fit after another as is frequently the case then it would be well to administer either Chloroform or Ether

The best thing that we can do is to wait for the period of repose before we institute any treatment Here we should have due consideration to moral and hygienic surroundings These will not only add to the efficacy of our drugs but are

essential parts of the treatment
Of medicine the best is the
Potassii Bromidum in decided doses
from ʒss to ℥j per die. or in the
absence of this any of the salts
of Bromine.
Whether it acts by contracting the
capillaries in the brain and
thereby diminishing the quantity
of blood, I am not prepared to
state; but that as an antiepileptic
or the best one know is admitted
by all. This should be continued
for months or even years
Although it is held by some;
"and with some degree of
probability" that physiologically

it tends to bring about a state of imbecility if continued for too long a period.- Yet I would not feel justified in withholding; for I may say that it is not only the best but with our present knowledge that it is the only agent from which we have the slightest hope May it not be in the cases reported; that it was the disease for which it was given and not the Bromine that brought about the symptoms This in combination with tonics of which the Tr Gentian Comp is one of the best.

In the use of the Bromide of Potassium it should be given

for months in full doses; then allow them to go for a while either without or on smaller doses for a week or two weeks, then give again in full doses for some months then let there be a longer interval of rest & so continue to use it until you think it safe to withdraw it altogether.

You should never loose sight of the fact that you have a chronic disease and one whose tendency is to grow worse to contend with; and that you must use your remedy boldly to to gain the desired end.

Cases are reported where the Bromide of Potassium does not have the slightest effect upon the paroxysms. Another class of cases it will act for a time then it seems to lose its ~~its~~ controlling power; while in another class it seems to mitigate the severity of the attack or lengthen interval between them
Having never met with a case of either of these kinds I am but little prepared to speak of the the treatment; but should use the antispasmodics with Argenti Nitras & Potassii Clodidum and tonics generally with what drug I would commence I

am not prepared to say for as I have previously stated. the Bromide of Potassium is our main reliance.

Respectfully
R C Tydings.

A
Monograph
On
Perebinthina.
By
T. B. Williams.

February, 1877.

Turpentine is the [illegible]
of some species of Pine
Two varieties of this substance are
officinal in the United States Phar
macopoeia: One is Canada Tur
pentine - Terebinthina Canadensis
and is kept in the shops under the
name of Canada balsam or bal
sam of fir. It is obtained fro
Abies balsamea, the American fir
or fir or Balm of Gilead tree, a
handsome evergreen of the northern
sections of North America.
The second variety is White Turpentine -
Terebinthina alba - which is procured
chiefly from [illegible] pa[illegible]us,

[illegible] is popularly known as the [illegible] Pine, and also [illegible] other species [illegible]

Turpentine is secreted [illegible] tubes, called boxes, made [illegible] the inner [illegible] of the tree. The annular portion of the tree [illegible] many grooves or scarfs [illegible] all leading to the [illegible]. The turpentine flows [illegible] rapidly during the spring and summer months; and especially is this the case on hot days [illegible] sun shines bright: as the [illegible] always made on the south side of the tree.

turpentine, as it is in the mass, usually presents a disgusting appearance, and is somewhat diaphanous. Its color however, constantly varies, with the amount of bark and other impurities, which it always contains to a more or less degree.

In the earlier days of our republic, large quantities of turpentine were derived from the pine woods of New England; but all the pine trees of that section have long since been hewn down; and, of late years, North Carolina has supplied not only America but, also to a great extent almost the entire civilized world with this valuable article of commerce. This is such a wide-spread and gen-

[illegible]

place in [illegible] North Carolina [illegible] recognized as [illegible]. The state boasts of a [illegible] upon whose pine-clad [illegible] situated the thrifty [illegible] in a Tarboro'! But as the pines of Southwand were destroyed those of the Old North State have at last, been exhausted; and today there is more turpentine made in Georgia than in all the other states of the Union put together.

There is some reason for the [illegible] that turpentine as a medicine is [illegible] a mash and drug with which [illegible]

[illegible] [illegible] [illegible]
[illegible] [illegible] and from these [illegible]
we can easily see that it
is a very great [illegible] [illegible]
and appreciated its possible pow-
ers are two, for, that turpentine
was the main ingredient of an oint-
ment with which the wrestlers,
racers and boxers of Ancient
Greece were accustomed to
rub themselves in order to ac-
quire suppleness and strength.
In the beginning of the Christian
era, it was evidently regarded as
one of the most efficient diuretics.
As to its composition, turpentine
consists of resin in combination with
an essential oil termed oil of turpentine

[illegible]

[illegible]

(2) [illegible]

imp. colourless volatile and inflam-

[illegible]

peculiar odour and a [illegible]

bitterish taste." [Biddle's Mat. Med.]

Its specific gravity is 0.800 [illegible]

it boils at or about 150°. and it

[illegible] in ether and in [illegible]

chloroform. [illegible]

only Carbon and Hydrogen. [illegible]

Exposure to the air it becomes acid

and [illegible] from the absorption

of Oxygen. This alteration in its [illegible]

or [illegible] fraction would always be [illegible]

[illegible] the activity of the drug is

[illegible] [illegible]
[illegible] [illegible]
are the effects of oil of turpentine
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
regular and, not occasionally, a [illegible]
contradictory.

Its stimulant effect is too visible
to be universally admitted. This we may
presume is true, independently of the con-
dition of the patient, or the dose
in which the medicine is given. Its
individual peculiarities, and other, [illegible]
[illegible] circumstances do so modify the
action of the oil of turpentine [illegible]
[illegible] [illegible] to many inconsistent state-
[illegible] [illegible] [illegible] [illegible]
Whatever be the dose, all seem to

[illegible] of the [illegible]

[illegible] of cantha on the stomach [illegible]

[illegible] and scarlatina is [illegible] like

other causes. It is opt to cause its

to great confusion of ideas, sensual

intoxication, the thirst, at the same

time being almost inordinately in-

creased; and the urine, [illegible] per-

ceptibly more abundant than usual.

Smells the odour of violets, and

the breath for a day or two smells

strong of turpentine. As to its action

on the alimentary canal, there exists

among authors a great diversity of

opinion. The United States Pharmacopoeia

[illegible] [illegible] the

prominent symptoms resulting from an

unusually large dose of the drug; and

authors, consequently in this respect.

Prof. Stille, though, relates at considerable length the symptoms of two persons who died as he thought from poison by turpentine. In neither, does he mention that there occurred any action from the bowels. Nor does he elsewhere in treating of oil of turpentine attribute to it even so much as a laxative effect. Biddle, too is equally silent on this point. It is not probable that either of these latter gentlemen overlooked so important an action of the medicine; and this not according to it any cathartic property is because they didn't believe

it to possess such powers.
One of the most obvious - and alarming - symptoms consequent on the too free exhibition of this drug is <u>strangury</u>. This is owing to the fact that oil of turpentine - <u>a local irritant</u> - naturally passes out of the system in large amount with the urine. Even in small and unrepeated doses, it excites, though gently, the kidneys, bringing about a slight hyperaemia and increasing their functional activity. If this determination of blood is in any way excessive or prolonged, there is immediately established a congestion which amounts to strangury.
This state of things as a general

rule is set up whenever a considerable quantity of oil of turpentine is taken into the system and allowed to undergo elimination by the kidneys. Then too, from some idiosyncrasy of certain individuals, or from an irritable condition of their kidneys, what is usually an innocuous dose of oil of turpentine may sometimes give rise to <u>severe</u> <u>strangury</u> and <u>haematuria</u>, or even, in exceptional and rare instances, to the total <u>suppression</u> of urine with all its deplorable consequences.—

From what different writers say, there is no reason to suppose that oil of turpentine, given in

small doses, is directed in an especial manner to the alimentary tract: yet it well to remember that the digestive canal does have its lining coat stimulated in common with all other mucous membranes of the body; and thus, simply by an increase of mucus, an evacuation may be produced from constipated bowels, or the bowel may be so stimulated as to be enabled to rid itself of an unhealthy discharge. So by giving tone and strength to the parts, it at once becomes a remedy almost equally efficacious in <u>diarrhoea</u> and in <u>constipation</u>. Still it never obtained any great popularity in either of these dis-

orders; and this is true notwithstanding the high praises lavished upon it in this connection by Chapman and others equally distinguished. Chapman especially has written much in praise of oil of turpentine in intestinal affections. He seems inclined to call it the remedy in diarrhoea, dysentery and cholera infantum. In chronic diarrhoea, where from the nature of the discharges there is reason to believe that the mucous coat of the intestine is largely involved, he styles it "an incomparable remedy."

Allowing, as we must, that the above is an exaggerated estimate of its value, still it can but be admitted

that in many bowel complaints, oil of turpentine will act most happily. There are some cases of diarrhoea and dystery to which Dr G. B. Wood — with seemingly good reason — considered it especially applicable. He gave it when there was a dry, smooth tongue; which symptom he regarded as indicating a depression of vitality calling for stimulation, and as pointing to the probable existence of an ulcerous state of the bowels. The profession is indebted to Dr Wood also for the use of oil of turpentine in Typhoid Fever. Long before he called attention to it in this affection, it had been used in all low forms of fever which seemed

to require general stimulation. But this eminent therapeutist was the first to point out a special condition in Typhoid or Enteric Fever, in which its use is strongly indicated. His views on the subject have been almost universally adopted; and this, of itself will suffice to place oil of turpentine in the front rank of our most important remedies as long as Typhoid Fever is numbered among the ills with which humanity is afflicted. Mr. Wood regarded a smooth and dry tongue with tympanitic abdomen as indicating an inflammatory or ulcerous condition of Peyer's patches and the solitary glands, and concluded that oil of turpentine would act

beneficially. The experience of half-a-century has only tended to confirm the correctness of his views.

Oil of turpentine has been somewhat a favoured remedy in Syphilitic Iritis. Because the medicine for this disease is Mercury. But there are not a few cases met with in which on account of a strumous diathesis the mercurial treatment is inadmissable. Now in just such cases, many contend, we have a valuable substitute in oil of turpentine. Even its strongest advocates admit its inferiority to mercury, and insist on its use only when the condition of the patient is such that we can not give him that drug.

Some, however, have gone so far as to maintain that the benefits accruing from its administration are due entirely to its purgative operation. This seems a most improbable explanation. For it is admitted that oil of turpentine, given in large doses, possesses the power of reducing the frequency and strength of the heart's action when there is sthenic fever [Stillé]; and may it not, therefore, be capable of diminishing the effusion of coagulable lymph in inflammatory disorders, and by this means allay the Iritis?

Oil of turpentine has long been held as a curative agent in Biliary Con-

cretions, and has been much employed in this most painful affection. While it has been so extensively used and lauded for the relief of this disease for more than one hundred years by many eminent men, including Richter, Sœmmering and Martin-Solon, it is certainly strange that so very little has ever been ascertained as to its mode of action. Some maintain that it acts as a solvent of the stone in the gall-bladder. This is highly improbable. Others argue that it acts by exciting peristaltic action in the upper part of the small intestines. If this is its modus medendi, it is inferior to both calomel and Gamboge.

So however numerous may be the eulogiums conferred by the books on this use of oil of turpentine, it seems impossible to find anything like a probable or even rational explanation of its mode of action; and there is sufficient evidence to show that it is — apparently deservedly — falling into disrepute in the management of this affection.

From the marked and decided effect which oil of turpentine exerts on the urinary passages, when given to a healthy individual, it is only reasonable to suppose that it should have enjoyed great celebrity as a remedy in the manifold diseases of those

parts. (And this, indeed, we find to be the case: no one article of materia medica, perhaps, having been so extensively - and so indiscriminately - used in such affections.

For many of the inflammatory conditions of the bladder and urethra, oil of turpentine is generally accorded a place among our best remedies.

In any chronic muco-purulent discharge, its judicious administration will as a rule prove beneficial; and it often dispels almost immediately gleet which for months has successfully resisted all the most approved methods of treatment known to modern science.

From its peculiar power of suppressing hemorrhage, oil of turpentine

has been somewhat largely - and successfully, too, it appears - used as a haemostatic in hemorrhage occurring from the urinary passages or uterus. The efficiency of the drug in such instances will be entirely dependent on the cause of the haemorrhage; and only very seldom will the conditions be such as will allow the oil of turpentine to be of much avail.

This medicine has also been spoken of in high terms as being of signal advantage in obstinate cases of gravel. This disease it can relieve by dislodging and washing away the sandy matters through means of the increased flow of urine which it

produces. In this way it may of course prove curative. But if this is its mode of action, we have at our command other remedies which are decidedly preferable: inasmuch as they are evidently more diuretic, as well as less inclined to bring about an objectionable congestion. Others argue, on what are surely theoretical grounds, that the gravel may be impacted in the urniferous tubules, and that oil of turpentine can expel it from those tubes simply by exerting a stimulant influence. This can only be construed as implying that its action in this case is similar to that of ergot, which has the power of causing the discharge of a

foreign bodies from the cavity of the uterus. But that this stimulant or contractile effect is of any appreciable or practible importance [illegible] than I am at present inclined to accept as a fact. For no one has [illegible] yet demonstrated that the tubuli uniferi are endowed with any [illegible] power [illegible] know that [illegible] of effecting the [illegible] muscular [illegible] suppose it [illegible] that they really [illegible] for if the gravel [illegible] the tubes and gave rise to irritation [illegible] is produced a condition of things in which it would be only rational [illegible] giving [illegible]

[illegible] inflammation
in a perfectly healthy kidney. [illegible]
[illegible] is [illegible]
not believe that in following [illegible] prac-
tice we will [illegible]

[illegible] the urine is streaked with pus
and blood or that there is [illegible]
indeed the presence of a [illegible]
inflammation or ulceration [illegible]
[illegible] of the kidney, the oil of [illegible]
[illegible] doses of thirty drops three or
four times a day is spoken of as
being productive of most [illegible]
results. This is precisely what we want.
[illegible] from treating the kidney
influence it exerts [illegible]
[illegible] never brought into contact with [illegible]

[illegible]

[illegible] that is that if there [illegible]

acute inflammation [illegible]

of active congestion [illegible]

turpentine, so far from improving

the condition of the patient, may

prove exceedingly disastrous. [illegible]

[illegible] disease [illegible]

matter is not always [illegible]

latter: hence – although [illegible]

to proper time oil [illegible]

[illegible] means [illegible]

correct diagnosis [illegible]

an alteration in the [illegible]

[illegible] the kidneys [illegible]

Oil of turpentine has also been given in nearly every affection of the pelvic viscera: In Amenorrhoea, menorrhagia, dimesis, suppression of urine, incontinence of urine and retention of urine, there has been found one or more - who recommends it.

But one of the most important properties of oil of turpentine is that by which it has the power of suppressing hemorrhage. In what manner it acts is as yet undecided; but all agree that it is an efficient remedy.

Oil of turpentine is likewise valuable as being an antidote to phosphorus. To act beneficially in phosphorus poisoning, the oil of turpentine must been exposed to the air some length of time: since its efficacy depends directly on the oxygen which it contains.

For rheumatism and gout oil of turpentine has long been a favourite domestic remedy. We can but regret that it is used so seldom in the former of these affections. Some will tell us that in inveterate cases of sciatica, oil of turpentine has "acted like a charm" - after everything else had failed

There are those who recommend its use in chorea, ~~in~~ neuralgia, tetanus, trismus infantum etc.

Oil of turpentine has been employed extensively as a vermifuge. Its action is said to be quite certain, but its use has given away to that of more palatable and less bulky drugs.

Oil of turpentine is used most freely as an external application, to produce counter-irritation etc. It is one of the best rubefacients known, and will produce vesication if its action is continued sufficiently long. Applied as a coating to burnt surfaces, oil of turpentine is superior to almost anything else. In combination with basilicon ointment, it cures

very rapidly; and there is said to be less pain than under any other mode of treatment.-

The dose of oil of turpentine as a stimulant is from five to thirty drops - as an anthelmintic from two or three drachms to an ounce - and as an alterative from thirty to two-hundred drops.-

A Thesis

on

Pneumonitis

by

D. C. Coplin.

Feb. 14th 1878

Acute Lobar Pneumonia

This is a disease having its seat in the parenchyma of the lungs, which comprises the ramifications of the bronchial tubes and their terminal air-cells together with the ramification of the pulmonary vessels, lymphatics

and nerves, all of which make up the lobules which being connected by areolar tissue make up the different lobes of which the lungs are composed. The inflammation in pneumonia has its seat in the lining membrane of the air cells and bronchioles. The membrane lining the air-cells differs in structure from that lining the bronchial tubes 1. In being thinner 2. In its want of mucous follicles 3. in its change of epithelium from the columnar to the tessellated. The difference in structure together with

the difference of function, of the [illegible] compared with the mucous membrane lining the bronchial tubes accounts for the inflammation in pneumonia being sometimes restricted to the terminal air-cells.

This is in accordance with a pathological law, viz., that inflammation of a structure does not, as a rule, extend to another structure, however proximate which have important anatomical differences, or which differs [illegible] in function

The absence of mucous folicles in the lining membrane of the air-cells account for important differences in the products of pneumonia and bronchitis.

Causation:- The occurrence of acute pneumonia is more frequent, according to statistics, between the ages of 20 and 30 years of age: though no period of life is exempt. The extremes of life appear to be less liable to attacks; but the prognosis is correspondingly grave, when they do occur

the age of puberty; especially in the very old. Is much more frequently seen in males than females, probably owing to the fact that they are more frequently exposed to the exciting causes. Persons exposed to the vicissitudes of the weather, from out-door work; or insufficient clothing are more liable to the disease than those who are not so exposed. Exposure to cold draughts of air, getting wet, or any thing which causes

[illegible] the body is heated [illegible] liable to bring on an attack of the disease. "Not infrequently the attack is [illegible] attributable to some unusual exposure, such as working in the cold or wet, or sleeping out of doors at night. [illegible] the first [illegible] take in the lungs, [illegible] congestion of the lungs, caused by [illegible] of the heart may also produce an attack of pneumonia. Pneumonia sometimes occurs

as a complication of typhus, and typhoid fevers, small pox, measles, puerperal fever and pyaemia. When it occurs as a complication of these diseases, it is generally a secondary affection.

According to Dr. Flint, the disease in this country occurs in the middle and southern much oftener than in the northern states.

Anatomical Characters.- "Pneumonia is characterized pathologically by hyperemia and oedema, followed by the formation of a fibrinous exudation

in the interior of the air-vesicles and minute bronchi. [illegible] various changes."

In the first stage the lung is gorged with blood and serum. On ocular examination, the affected lung [illegible] externally a dark red or mottled appearance; and upon section it presents a red color with a quantity of reddish and frothy serum flowing from the cut surface. Crepitation is less marked than in healthy lung.

The weight is increased owing to the exudation, though [illegible] float [illegible]. Its cohesion is diminished and it is more easily torn, resembling in this respect the substance of the spleen; hence the term splenization has been given [illegible] to this stage of the inflammation.

Second or Exudation Stage. The air-cells become filled and distended with a coagulating material which escapes from the blood, and coagulates within them. They cease to

contain air and respiration is entirely absent. The portion is no longer perceptible, but on section presents a granular appearance. The affected portion is much increased in weight, and no longer swims when placed in water. "A single lobe solidified by inflamatory exudation increases in weight from one to two ounces, and an entire lung solidified may require an addition of weight of four pounds."
The affected lung is now more little and is easily

broken down under the pressure of the finger. This results from softn of the areolar tissue.

The color according to some authorities is of a more uniform and dull reddish color; hence they give this condition the name of red hepatization, but Dr. Flint says; "In this condition usually the lung contains but little blood, and presents a pale anaemic aspect; hence the term red hepatization is inaccurate."

There still flows out, upon

[illegible]

[illegible] stage; and does not [illegible] the frothy appearance. Owing to the vascular congestion and effusion of the blood, or some of its products, the the affected parts do not when the thorax is laid open. Should the disease pursue a [illegible] the [illegible] is principally removed by absorption; though it is probable that a portion is expectorated. The absorption

may take place with great rapidity; and after the exudation is removed the air-cells are found to have undergone no structural change.
The pulmonary structure remains intact during the period of exudation, and its functional power is entirely restored after absorption has been fully completed.
But on the other hand, should the disease pursue an unfavorable course, absorption of the exudation does not occur; and we have the

what is called the
Gray Hepatization stage
when the color gradually,
[illegible] leaving gray, with
a greenish or yellowish
tint; when divided a
purulent fluid flows
from the cut surfaces.
The granular appearance
is lost and the
substance is much softened.
This purulent stage is not
attended with fetor.
Gangrene is very seldom
a result of pneumonia;
yet it is said in
rare cases to occur,

which cases the lung
[illegible] a [illegible] or [illegible]
brown color and is
most intolerable fetor.
"The gangrenous portion is
moist and wet; sometimes of
the consistence of the
engorged lung; more commonly
softer, and even diffluent."
Abscess is another pathological
termination which is apt
most with: "though one or more
abscesses may form, and
discharge into the bronchi
leaving a cavity; or
into the pleura or
become incapsuled; the

[illegible]
or [illegible]
Statistics show that the
lower lobe of the right
lung is often the
seat of the affection;
though it may [illegible]
in any other portion,
than an upper lobe
is the primary seat
of the disease the
prognosis is considered more
grave. The inflammation
may confine itself to
one lobe or it may
extend itself to different
lobes, or to one or more

lobe may be attacked simultaneously. Portions of the lung not directly involved in the inflammation are frequently more or less congested and edematous. The pleura is more or less involved in the majority of cases; though pleuritic effusion is seldom prominent, and in many cases entirely wanting. Bronchitis is present to a greater or less degree, in a vast majority of cases. Though cases do occur, in which the affection

is not manifest during the whole course.

Owing to the obstruction to the passage of the blood through the lungs the right cavities of the heart and the venous system is overloaded, causing congestion of all the organs. Heart clot is sometimes a consequence depending on an excess of fibrin in the blood and the engorged state of the heart.

Symptoms. In the majority of cases the initiatory

stage of pneumonia is ushered in by a more or less well marked chill, followed by febrile action. There may also be great prostration, with vomiting and nervous symptoms, such as headache, delirium; and in children sometimes convulsions.
In other cases the attack is preceded for a time by symptoms indicating general indisposition.
The special symptoms are local and general.
Local. Coincident with or

cess after the chill
pain is usually a prominent
symptom. The pain in
pneumonia is prominent
only in those cases
in which pleurisy is
a complication; but this
complication is present in
the greatest number of
cases. The seat of the
pain is usually on a
level with or a little
below one or the
nipple, but it may
exist at almost any
point of the thoracic
walls. Its diffuse growth

as regards this symptom) it may be quite transient or altogether wanting. The character of the pain is sharp and lancinating and is increased upon deep inspiration, cough, sudden movement, or pressure on the affected part; and differs in no respect from the pain of pleurisy except in being usually restricted to a little area. The pain is usually increased when the patient attempts to lie on the affected side.

The pain becomes more as the disease advances, and ceases altogether sometime before the disease terminates. When there is no distinctive pain, there is a feeling of more or less uneasiness; such as, lightness, weight, heat &c.

Prominent among the early symptoms is dyspnea, as is evidenced by the sensations of the patient; the hurried respiration, by the working of the nostrils, and difficulty of speech. The dyspnea is

generally in proportion
to the extent and severity
of the disease, though in
some persons the respiration
is much affected from
a small portion of the
lung being affected, while
others show but little
inconvenience from a much
greater extent of inflammation.
In this the amount of
dyspnea does not always
furnish a true measure
for the amount of inflam-
mation. In some cases the
dyspnea is so extreme
that the patient takes

no account of what going on around, but is wholly occupied in breathing. The expression is anxious, & the face livid. The number of respirations is greatly increased, as compared with the pulse; reaching from 30 to 70 and sometimes even 80 per minute.

Cough usually comes on soon after or coincident with the attack; and is usually a prominent symptom, though it may be entirely wanting. It is usually attended with more or less pain.

The expectorated matter at first is scanty, transparent and viscid; It soon becomes semi-transparent and adhesive; and presents a tawny or rust colored appearance. The adhesiveness is such that it is discharged with great difficulty, and has to be wiped from the mouth; and is so adhesive to the vessel which receives it, that it will not fall out when the vessel is inverted. The absence of such expectoration can

not to be taken as a negative sign of pneumonia, but it should may be considered as almost pathognomonic of the disease. It is usually the second or third day before the sputa assume a characteristic appearance. The rusty color is imparted to the sputa by an admixture of blood which color soon changes, and presents different shades of yellow until it becomes merely bloodstained. When the blood contained in the sputa is dark, and

abundant if the lungs called the frame fever expectoration.

Pneumonia may run its whole course without expectoration being established.

General symptoms the febrile phenomena of pneumonia differ but little, if any, in the early stage from that of fevers in general.

The skin becomes dry and hot, with loss of appetite, thirst, prostration &c.

The temperature rises rapidly, but in favorable cases is not apt to rise above

104°F., but recoveries are reported in which it has reached 107°F. The temperature is usually higher in the morning. A sudden rise of temperature during the disease indicates an extension of the inflammation, or the invasion of an intercurrent disease. The face frequently presents more or less turgidity, with a dusky or livid hue. Sometimes the cheeks are flushed presenting what is known as the red round spots, which may last but for

a short time and fade away to return again; they may be present on one or both cheeks.

The pulse rises rapidly usually with its acme in a few hours after the invasion. It is at first usually full and incompressible; but as the disease advances it decreases in volume, and force; no doubt this is partly owing to the supply being cut off from the left cavities of the heart, by the obstruction of a portion of the lung;

and partly owing to the lessening of the volume by the abstraction of the inflammatory products. The frequency of the heart's action varies greatly in different cases, ranging from 70 to 100; in some cases, even to 160 or upwards. Prostration is almost always a prominent symptom. The digestive organs manifest the same disturbed condition that is common febrile affections viz.; anorexia, sometimes vomiting, and occasionally jaundice; the bowels are frequently constipated. The cerebral symptoms may

from slight headache and restlessness, to active delirium. The urine as well as being scanty and light colored is usually deficient in the chlorides, and frequently contains small quantities of albumen. Certain symptoms sometimes supervene analogous to those belonging to typhoid fever such as delirium, subsultus twitchings and tremors, convulsions and coma. This state is termed typhoid fever; and is most apt to occur in individuals whose system has previously been impaired.

by disease or intemperance; or when the disease passes on to suppuration or gangrene.
"The formation of lung is usually attended with severe rigors and increase of pyrexia. If it extends in an abscess, it may be suddenly discharged along with fragments of lung tissue."
Physical signs. In the first stage the respiratory murmur which is heard on inspiration when well marked affords one of the most important physical signs, as always being

indicative of pneumonia; though it is not always present. Slight dullness or deficient resonance may be detected on percussion over the affected part. The respiratory movements are diminished to a great or less extent and vocal fremitus may be increased. The respiratory sounds are usually modified affording the bronchial or tubular

Second Stage In this stage we have bronchial respiration, or the Tubular or metallic sound; and the respiratory murmur is entirely wanting

over the affected portion. The bronchial sounds are more plainly heard when the disease is seated in parts of the lung where the number and size of the bronchial tubes are greatest. viz; the upper and central portions.

Dullness on percussion is more complete than in the former stage; and resistance is also increased. When the disease is confined to the base of the lung, there may be increased resonance on percussion in the upper portion.

The crepitant rale may or may not be present during this stage. Vocal fremitus is intensified. The sounds of the heart are intensified over the solidified portion. If the whole or a greater portion of one lung be involved in the inflammation, the respiration in the healthy lung is apt to be puerile.

Third Stage Assuming that the disease is to run a favorable course, we have the process of resolution established with amelioration of all

the symptoms. The febrile symptoms gradually abate; the cough and expectoration diminish, and respiration gradually assume their normal pulse ratio. The appetite returns, and the patients strength increases. Auscultation now reveals slight crepitation with diminished bronchial respiration. This change continues to grow more marked, until the crepitation is quite prominent; and the bronchial respiration is lost. "The same symptoms therefore recur, over again, but — a second side;

the returning crepitation is however coarser and larger, and less equally diffused, than that of the advancing pneumonia: and even when nothing is heard in the ordinary condition of the breathing in the natural vessicular murmur, some crepitation is found for some little while ~~while~~ to mingle with it towards the end of a deep down inspiration." An attack of pneumonia may sometimes be followed by slight distension of the chest.

Should the disease, instead of terminating in resolution, advance to the suppurative stage, the symptoms instead of abating denote more gravity of disease. The pulse increases in frequency and decreases in force. The respirations become more hurried; and the patient becomes prostrated, and death ensues from asthenia; or death may take place from asphyxia owing to the accumulation of the inflammatory products in the air tubes. Although the stage of purulent infiltration

usually terminates in death, recoveries do sometimes occur after a long and tedious convalescence.

Duration The duration of acute pneumonitis is very variable; convalescence sometimes being declared as early as the fifth or sixth day or it may be delayed until the expiration of three or four weeks, the mean duration being from 10 to 15 days.

In fatal cases death may take place at any time from the third or fourth day, to to the third or fourth week.

[illegible]

[illegible] repetition, we will content ourselves by a simple reference [illegible] of the diseases with which pneumonia may be confounded, without repeating the physical signs previously given, which are sufficient to distinguish the disease. Among the diseases that acute lobar pneumonia is likely to be mistaken for are Catarrhal pneumonia, pleurisy, bronchitis, typhoid [illegible] fever, acute phthisis and, in some cases attended with active delirium [illegible] meningitis.

Prognosis:- The gravity of the disease depends very much on the extent and location of the inflammation. When the disease is confined to a lobe, and the patients constitution be good, recovery is the rule, under proper treatment, combined with proper hygienic measures. The circumstances which render the prognosis more grave are infancy and old age; pregnancy; debility from previous disease; previous debauches; chronic phthisis; pleuritic adhesions, or any preexisting disease which has reduced the system below the

normal standard, [illegible] the attack. The [illegible] also [illegible] when the disease attacks primarily an upper lobe, or when a whole lobe is involved; and still more grave, when both lungs are attacked [illegible], or where the disease is a complication of the low fevers, or when the disease advances to the third stage, that of purulent infiltration or the formation of an abscess.

Treatment:- Various opinions have been held, as regards the treatment of this disease; and all the grounds occupied, lying between the

the extremes of active depletion on the one hand, and excessive stimulation on the other.

We therefore prefer rather to confine what we have to say, to that method which the experience of the profession seems to justify, than to discuss the merits and demerits of past practice. In mild cases, in patients of good constitutions, the tendency is to recovery; and under the good hygienic influence the patient may recover speedily without the aid of therapeutic agents; though even in the mild cases convalescence may be hastened by the judicious use of

become indifferent
to a proper management
of the disease. As regards hygienic
management, a full supply
of pure air may be reckoned
of the first importance, though
caution is necessary to guard the
patient from being exposed to
current, and also to preserve
a uniform temperature.
The diet should be nutritious
and easy of assimilation, but not
of too stimulating a character.
Among the articles of food that
suited to meet these conditions,
may enumerated, milk, beef tea,

animal [illegible], [illegible]
of food should be regulated
to the demands of the system,
and the powers of digestion.
The remedial agents to be used
vary in accordance with the
individual conditions present in
any given case. If the pulse is
full and strong with marked
acceleration; in the early stage
of the disease; a saline cathartic
may be given with advantage
especially should should there
be a tendency to constipation.
In this condition the cardiac
sedatives may be given with
advantage for the purpose of

controlling the [illegible]
and thus [illegible]
of blood sent to the already
engorged lung. Aconite in doses
of from 2 [illegible]
tincture, every three or four hours,
is beneficial in reducing the
heart's action; and is also thought
to have some power in reducing
the temperature and cutting short
the inflammation. Should it fail
to produce the desired effect in
the above doses it may be gradually
increased until some effect is
obtained. The veratrum viride
is useful under similar circum-
stances, though it [illegible]

[illegible] the [illegible].

Tartar emetic, in doses of from one fourth to one half grain [illegible] three or four hours, acts on much the same principle, though it is open to the objection of exerting a more depressing influence. If there be much elevation of temperature, quinine in doses of from 10 to 20 grains every five or six hours, is an antipyretic of much value; often reducing the temperature markedly in the course of a few hours. Should there be much venous congestion, in robust patients venesection may sometimes be resorted to with the view of

[illegible] to the [illegible]
of the heart, and thus [illegible]
venous congestion; or what is
is usually preferable, the application
of cups over the affected part.
Opium in some of its forms
is useful in allaying pain
and procuring sleep, though care
should be taken not to carry
it too far. Mild counter-irritation
over the chest is useful,
usually by diverting the blood
from the inflamed part, though
blisters are not called for,
especially during the first stage.
The use of dry cups, stimulating

liniments, sinapisms, stupes, fomentations and tincture of [illegible] are among the most useful local applications. During the second stage, great caution should be used in the use of sedatives, the main object now being to support the system, and promote absorption, though if there should be undue action of the heart there could be no objection to their judicious use. The mercurials have been recommended as being useful in this stage by promoting absorption but owing to their tendency to lower the vitality they are now generally believed to be contra-indicated.

[illegible]

[illegible] and if

judiciously used will probably

[illegible].

As one of the great dangers

of this stage is from asthenia,

due attention should be given to

maintaining the strength of the

patient by the administration

of a sufficient amount of such

food as has been previously refered

to; together with some of the

vegetable or mineral tonics or

a combination of the two. In cases

where the action of the heart is

feeble,

as evidenced by a quick and feeble

pulse, digitalis in small doses,

gradually increased, is an
invaluable [illegible] from its fatal
effect upon the heart.
In that class of cases in which,
[illegible] age or previous disease,
and in all low forms of the
disease, where debility is a
prominent symptom, alcoholic
stimulants are not only admissible, but are frequently imperatively
demanded. Their use is to be
governed by the effect produced.
The indications for their continuance
being a decrease in the frequency,
and an increase in the force
of the pulse. Where there is
delirium with a tendency

collapse, other stimulants such as carbonate of ammonia, spirits of chloroform, ether, and camphor may be administered. The patient during convalescence should receive due care until thoroughly out of danger.

Influenza

by

W. H. Billingham

Class 16-1

The eminent Italian
of influenza are suffering
alike to identify the
disease though sometimes
another may have been more
conspicuous. This catarrh
cough, and fever, have been
common to all, but in some
the catarrhal affections in
some the cough, and in
others the fever has been
[illegible], [illegible], [illegible]
the chest, or pains of
the head, or of the limbs,
in [illegible], [illegible]
in [illegible], and may

is attended with [illegible]
restlessness, and [illegible]
anxiety. [illegible]
[illegible] of his [illegible];
he passes [illegible]
[illegible] hundred and [illegible],
In the [illegible]
[illegible]

[illegible]
[illegible]
of spirits. [illegible]
[illegible]
have come on [illegible]
[illegible]
have been improved
[illegible] The bowels, the dry
deafness and although
the cough continues the
expectoration is more
free, the sputum being
of a thicker consistence
and milder quality, the
[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] Thus in [illegible] there

is [illegible], [illegible]

[illegible]

affection, [illegible]

stated, in others [illegible]

Throat in others a

pereopneumonic condition

and in others a disordered

[illegible] stomach

[illegible]

[illegible]

[illegible]

[illegible]

tion of the [illegible]

mixed with the [illegible]

of [illegible]

morbid tendency which

may happen to be present

at the time of attack.

The swelling of the [illegible]

and the swelling of

the [illegible] are

symptoms that deserve

particular attention,

as they have been in

several instances [illegible]

[illegible]

[illegible]

[illegible]

in which the power

[illegible] is [illegible]

except [illegible] in [illegible]

[illegible] where the

[illegible] as well as

the [illegible] of [illegible]

is [illegible]

even under the influence

of a strong exciting motive.

[illegible]

the [illegible]

a certain [illegible]

[illegible]

[illegible]

[illegible]

after [illegible]

chilliness [illegible]

[illegible]

[illegible]

The head, [illegible]

[illegible]

dress and [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] when something [illegible]
great [illegible] itself in
some part of the abdomen
[illegible]
night, [illegible]
become [illegible]
[illegible]

[illegible]

[illegible] the electrical [illegible]

[illegible] great influence on the [illegible]

[illegible] electrical influence [illegible] on the [illegible] modus operandi is at present little understood with respect to the treatment of [illegible]

[illegible]

[illegible]
[illegible] of
the symptoms of [illegible]
matism, [illegible]
& a dull aching depth
is certainly [illegible]
especially [illegible]
of pneumonia, or in
flammation of the lungs
or their covering. The
pleura are [illegible]
rheumatic sometimes or
[illegible] inflammatory, and
when this is the cause, there
is a hard [illegible]
on the side of the chest.
for the most part [illegible]

[illegible]
the [illegible] in which [illegible]
pain is felt [illegible] is
always increased by
inspiration, when the
pleura rather than
the substance of the [illegible]
are inflamed the [illegible]
ish irritation is often
more strongly marked.
The topical pain [illegible]
and the [illegible]
more strained and [illegible]
[illegible] the patient
crying out with distress
when desired to take
full [illegible]

[illegible]
[illegible] with some of the
[illegible] amount of [illegible]
would prevent as [illegible] if
patient were laboring
under pleurisy, alone.
depletion, and apply a very
large mustard cataplasm
fully. The size of this page
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]
[illegible] with [illegible]
[illegible]
[illegible]
which [illegible]
[illegible] in the [illegible]
of the disease, when the
cough is quite troublesome,
the mucilaginous mixture
with [illegible]
[illegible]
[illegible]
[illegible] from an [illegible]
[illegible]
[illegible] gentle [illegible]
[illegible] in the evening.
[illegible]

[illegible]

[illegible] the [illegible]

[illegible] we would

call [illegible] well [illegible]

[illegible] convalescence

[illegible]

[illegible]

may be [illegible]

[illegible]

Thesis
by
E. H. Robbins

1877

Typhoid Fever.

It is essentially a fever of continued type, invidious in its mode of invasion. "The name typhoid is open to objection. The German writers name the disease abdominal typhus. Prof. G. B. Wood has suggested the name enteric fever. Murchison has proposed pythogenic fever as an appropriate name, which signifies the cause to be putrescent matter."

Anatomical character. Typhoid fever has certain characteristic lesions, which it is very important should be understood, they are a certain series of changes occurring in Peyer's patches, and solitary glands of the small intestine

the first step is the congestive stage, the second is a deposit of a morbid product, within the glandular sac. The glands nearest the caecum are first affected, and successively those above. The third step is the sloughing of the mucous membrane and glands, which varies in different cases, but very seldom is complete before the end of first week. The fourth stage is ulceration, which is a consequence of the sloughing. The ulcers can be distinguished from those of tuberculosis ulcers in the same situation, as their edges are not hardened and elevated, but presenting an under-

mining appearance, with the mucous membrane overlapping at the margins of the ulcer. Fifth stage, that of healing of the typhoid ulcer, in which a process of cicatrization is established, which usually begins in the third week of the disease and is going on during convalescence, the time occupied in the completion of this process varies in different cases. The intestine is liable to be perforated by one or more of the ulcers . . . and if the opening be of sufficient size to permit of the escape of the contents of the intestine into the peritoneal sac, there will be associated acute peri-

tonitis. The foregoing changes are not invariably limited to the small intestine, but, not infrequently the solitary glands of the large intestines are involved, and in some very rare cases the characteristic lesions are confined to the large intestines, they also have been found within the pyloric portion of the stomach, more or less enlargements of the mesenteric glands is always associated with the intestinal lesions. The spleen is more or less enlarged and softened, it is sometimes the seat of hemorrhagic extravasation. The pharynx and oesophagus are

the seat of minute ulceration in a small number of cases, sometimes inflammation of the gall-bladder occurs, not infrequently pneumonitis is a complication. It is not uncommon to have cerebral congestion, in some cases the heart is flabby and soft. "Coze, Feltz, and Tizi have observed bacteria in the blood". The fibrin and albumen of the blood are generally diminished, white corpuscles are increased and the red globules are deficient. In some cases the kidneys are pale, in others notably congested. Changes of the fibres of certain voluntary muscles

have been described by Benper and Hoffman as occurring not infrequently.

Symptoms; forming stage chills or chilly sensations, anorexia, Epistaxis, mental irritability, headache, sometimes nausea and vomiting, Looseness of bowels, pains in limbs, lassitude and progressive debility until the patients is compelled to take to the bed. In the early period of the disease the face is more or less flushed, as the disease progresses the countenance becomes dull, in some cases there is lack of any expression, which corresponds

to the severity of the disease. During the first week head-ache more or less, pain in the back, during the first few days wakefulness is complained of, owing to the mental condition the want of sleep is not felt, after the first few days, the patient lies dozing, perhaps muttering, quite disturbed, all day, this state is called coma-vigil, which signifies sleeping and wakefulness, Delirium is more or less manifest, it apparently proceeds from weakness of mind, and in the majority of cases it, is of a quiet and passive kind, occasional exceptions occur, in

which the delirium is noisy and active, it is not usually manifest until second week; carphologia and subsultus tendinum in severe cases, want of appetite is the rule, to which there is some exceptions. The tongue may be simply furred, but is oftener coated more or less thick, which is whitish, yellowish, brownish or black, gradual thinning of coat, surface being moist, betokens convalescence, sordes is apt to collect upon the teeth and lips, after the first week, it is common for the gums to be red and bleed on slight pressure, inflammation of the

parotid glands is a somewhat characteristic but rare complication. In a large majority of cases diarrhoea exists, the dejections give an alkaline reaction and have a yellow, ochre color, involuntary evacuations, from indifference and sometimes from paralysis of the sphincter ani denote great gravity of disease. Tenderness and gurgling on pressure in the iliac region especially on right side, tympanitic resonance from the presence of intestinal gas, in a certain proportion of cases hemorrhage from the bowels occurs, perforation of intestine

occur in some cases, and generally gives rise to peritonitis, which is almost certainly fatal. There generally appears an eruption on the body, which is most frequent on the chest, abdomen and back, the eruption consists of isolated papules of a rose or pink color, called rose colored spots of typhoid fever, the eruption appears between second and twelfth day, dating from time of taking to bed, occasionally minute ecchymoses are observed. The frequency of respiration is increased, the average being twenty-one per minute.

Pneumonitis is a not infrequent complication, a spasmodic or jerking inspiration when pneumonitis does not exist, is an important symptom as a precursor of cancer, not infrequently epistaxis occurs after the forming stage, the hemorrhage is generally small, but sometimes profuse. Occasional complications of typhoid fever are oedema of the glottis and laryngitis. Pulse are often quick and vibratory, more or less acceleration of the pulse in most cases, in some mild cases the average frequency is less than in health, the

gravity of the disease is as a rule in proportion to the acceleration of the pulse, if the pulse exceed one hundred and twenty per minute the danger is considerable, the average frequency in cases not proving fatal is from ninety two to ninty-five, considerable increase in the frequency of the pulse occurring suddenly, denote the occurence of some important event such as peritonitis or pneumonitis, the pulse are not infrequently observed to fall below the standard in health at, or near the time of convalescence.

Invariably there is more or less increase of the heat of the body, for the first five or six days the thermometer shows a gradual increase in temperature which at the end of this period rises to at least 103° Fah. If the thermometer should show much increase above this the prognosis is unfavorable, whereas a decline of temperature in the morning is evidence of convalescence, there is oscillation of temperature as a rule in the process of the disease between morning and evening, the difference being less than a

degree up to the time of convalescence when the difference becomes much greater being from four to five degrees.

The urine is usually scanty and of high specific gravity, until the approach of convalescence, when it becomes abundant and of a low specific gravity, it is generally highly colored, excessive in the amount of urea, deficient in the chlorides, and sometimes albuminous. In severe cases, retention of urine occurs in some cases. The average duration of the disease from time of taking to bed till convalescence,

is about fifteen days. Convalescence like the development is gradual the average duration is from one to three weeks, Occasional sequelæ are, pulmonary tuberculosis, and subcutaneous abscess, Diphtheria, mumps, and scarlatina.

Cause of typhoid fever is not established, it is probably caused by neglect of hygiene, it is endemic in every quarter of the globe, it rarely affects infants or the aged, it shows a decided predilection for autumnal season, There is much unanimity of opinion as to the contagion of the disease, it certainly is not, eminent-

by contagion, but under certain circumstances it is communicated is certain, it is also certain that it originate spontaneously, there is very good ground for the conjecture that the poison is derived from the intestinal discharges. The period of incubation is about two weeks.

Diagnosis. typhoid fever is to be discriminated from other essential fevers, especially typhus fever. In the early part of the disease it is not always easy to make a positive diagnosis. the discrimination is to be made by absence of events

diagnostic of other fevers, and ascertaining the presence of events which are diagnostic of typhoid fever, the most distinctive [illegible] of typhoid fever are [illegible] deafness, diarrhoea [illegible] colored dejections, tympanitis [illegible] absence of marked remissions, tenderness in the iliac region and gurgling, the characteristic eruption, and epistaxis, the zenith of the nation and autumnal season. Typhoid fever is discriminated from typhus fever by the absence of the diagnostic symptoms of typhus fever, which are, forming stage chills, the chest,

dusky face of the surface, the appearance of the eruption earlier in typhus than in typhoid; in typhus the eruption after two or three days if not at first, is maculated, the color dark red, and the redness not disappearing on pressure, which is very copious and frequently extends over the extremities, and are hemorrhagic. The early occurrence of nervous symptoms, bowels generally constipated. Local affections with which typhoid fever is liable to be confounded are meningitis, bronchitis, pneumonitis, acute tuberculosis, and enteritis, meningitis is

excluded by its diagnostic symptoms which are, intense headache, intolerance of light and sound, early and active delirium, frequently vomiting, somnolency and coma, succeeding the delirium, generally constipation and the mark of tenderness, in the iliac region. Subacute tuberculosis is an element of typhoid fever the duration and progressive increase of the disease together with the characteristic course of the fever will lead to a correct diagnosis. The existence of pneumonitis shown by its physical signs, the differential

diagnosis is to be based on facts which show the existence of fever prior to its occurrence. Acute tuberculosis is to be discriminated by the notably progressive of respiration, the prominence of the cough, the occurrence of haemoptysis in some cases, the abundance of subcrepitant rales, by marked lividity in some cases. When it is thought to be primary or idiotic, events other than the abdominal symptoms belonging to typhoid fever are to be sought after. Thermometer is useful in making a diagnosis, before the eruption and

other distinctive features are fully developed, if the thermometer shows a notable increase of heat the diagnosis may be made with confidence, unless acute inflammations are excluded.

Prognosis, the mortality from this disease varies greatly under different circumstances, Every practitioner should be very guarded in his prognosis as perforation is liable to occur after convalescence has been established, and in very mild cases, the average mortality is twenty-two per cent, death is generally

attributable to complications or accidents, such as pneumonitis, peritonitis and occasionally hemorrhage, unfavorable signs are convulsions, coma, active persistent delirium, great prostration, pulse extremely frequent and feeble, and increase of temperature above a hundred and five degrees.

Treatment. The treatment of typhoid fever must be expectant, as it is a self limited disease, and no cutting short of its is possible. Some of the measures used in the plan of abortive treatment, are Quinia in large doses, full doses

of chinin, and the use of wet sheets after the hydropathic method, none of which have proved to be successful in abortive. Antipyretic treatment is indicated in cases where the temperature is very high. If the thermometer is up to a hundred and three degrees or more, refrigeration by the wet sheet, cold bathe or sponging the surface of the body, are appropriate methods of reducing the temperature certain remedies are useful in conjunction with refrigeration, for the reduction of temperature, namely Quinia digitalis, and the veratrum viride.

By some practitioners the mineral acids are entered in treatment of typhoid fever, the oil of turpentine is considered to have a curative influence on the intestinal ulcers by some practitioners, if used should be given when the tongue is dry and deeply fissured. Head-ache in the early part of the disease requires palliative measures such as applications of cold water, vinegar, spirits and water or ice-caps. Insomnia is a symptom calling for treatment, a full dose of opium will generally suffice. Delirium if prominent demands treatment,

opium and other anodynes are indicated, if these fail to relieve the delirium, the hypnotics, antimony and hydrate of chloral should be tried. Sometimes sometimes requires to be restrained, for this opiates and astringents are to be employed, in rare cases constipation may require treatment, simple enemata will generally suffice, if not a simple laxative. Peritonitis, independent of perforation, or caused by perforation calls for supporting measures and free use of opium. Intestinal hemorrhage, if profuse calls for astringents in conjun-

ction with opiates. Pneumonitis should not be treated with depletion. Epistaxis is sometimes so profuse as to require astringents in addition to the nasal. Hæmaturia if present calls for diuretic and diaphoretic remedies, retention of urine should be provided against. [illegible] Supporting measures are the most important part of treatment in typhoid fever, hygienic measures indication are, good nursing, frequent change in the position of the body, complete ventilation, clean linen, Supporting measures are tonics, alcoholics and alimentation,

Alimentation is the most important, the patient should take as much nutritious food as will be digested and assimilated, the diet should be in a liquid form, animal broths or essences and milk are the best forms of food, Quinia is the most efficient tonic. Alcoholic stimulants should not be indiscriminately used necessarily used, but used properly, when indicated form an important part of the treatment in typhoid fever. Indications for the use of alcoholic stimulants are derived from symptoms relating to the heart,

Failure of the circulation as denoted by the pulse and the heart sounds, calls for the use of stimulants, they are to be given in quantity in proportion to the degree of feebleness of the circulation and to their effects. They may be combined with nourishment, should be given in moderate quantities during convalescence, as soon as convalescence is declared solid food should be allowed, with caution as to the kind and quantity. In consequence of a liability to perforation of the intestine, in convalescence, care with regards to muscular exertion is important.

Scarlatina.—

L. Chaplain.
February 1877.

Scarlatina, scarlet fever, or scarlet rash, so called from the color of the eruption, is one of the most frequent and fatal of the contagious diseases. It presents a great difference as regards symptoms and fatality. In its mildest form, it may be a trivial affection; in its gravest form, few diseases are more dangerous or capable of arresting life with such fearful rapidity. It may occur at any age, but is by far most frequent in childhood. Three different forms or varieties are generally recognized, viz., scarlatina simplex, scarlatina anginosa,

and scarlatina maligna.

Symptoms.— Scarlet fever is generally very abrupt in its invasion. It sometimes begins with a chill followed by high fever. Or the chillness may not have been observed. Intense fever however is present from the commencement. There is also anorexia, thirst, headache, and general malaise. The fever in this affection is notably higher than in any of the other eruptive fevers. The thermometer may indicate a temperature of 107° to 107½° in the first days of the fever. The skin is hot and dry, face flushed, eyes bright and more or less suffused, pulse rapid.

Great frequency of pulse and heat of skin are distinguishing characteristics of this disease. Vomiting usually occurs within the first 24 hours and is a symptom of considerable diagnostic value. It is not obstinate as a rule and occurs but once or twice in most cases. If the stomach continue irritable and the vomiting persist it is an indication of a serious form of the disease.

In the majority of cases the throat is more or less affected. Exceptionally in very mild cases no inflammation of the fauces and buccal mucous membrane occurs. (c-) there may be simple redness ex-

tending over these parts if the throat be but moderately affected. In a majority of cases the tonsils are swollen and a whitish exudation makes its appearance. This exudation is easily distinguished from that which occurs in diphtheria. It is fuliaceous, it adheres less firmly and cannot be detached in strips. Deglutition is rendered more or less painful, and the voice becomes nasal according to the amount of throat affection. The lymphatic and submaxillary glands at the angle of the jaw are frequently swollen and tender.

The tongue is generally coated and

the papillae often project through it making their appearance in numerous red points. This coating exfoliates in the course of the affection, and the papillae being elevated and enlarged, the tongue presents the peculiarity of being like a ripe strawberry. The strawberry-like tongue is a symptom which occurs in no other disease, and is therefore pathognomonic. It is generally but not always present.

The eruption usually appears on the second day. It first makes its appearance on the face and neck generally, but in a certain number of cases it is first seen on the trunk

and limbs. The rash rapidly spreads and in the course of a very few hours these reddish patches are diffused over the whole cutaneous surface. It first presents itself in the form of minute specks which gradually unite to form irregular patches. The color of the eruption is scarlet and is not uniform in appearance but the patches are studded with minute points of a deeper red color. On passing the finger over the eruption a sensation of roughness is imparted to it, but no marked prominences are observed. The redness disappears momentarily upon pressure, and returns in mild cases as soon as

the pressure is removed. If the return of the rash be tardy it indicates sluggish circulation and when marked is evidence of the malignant form of the disease. The rash often produces a sensation of itching or burning. During the eruptive stage anorexia continues. Vomiting is occasionally present. Thirst generally is great. Restlessness and delirium frequently exist. Albuminuria may occur in a certain number of cases but does not always denote renal disease. About the beginning of the second week the fever begins to abate and the rash to disappear. The disease which was so abrupt in its invasion grad-

ually declines. The inflammation of the throat diminishes, and the appetite returns. The child becomes brighter and his countenance is more natural.

Then follows the period of desquamation. The epidermis begins to exfoliate first about the face and neck, and progressively extends over the whole surface of the body. The little patient during this process gradually improves. The cuticle may be exfoliated in small scales or as is the case in the hands and feet in the form of large pieces of epidermis. Albuminuria is more apt to occur in this stage than in the stage of eruption. The duration of this stage is indefinite. It is usually completed in

from ten days to two weeks.

This is a short account of scarlet fever in its regular course without complications or sequelae.

The name scarlatina anginosa is applied to those cases in which the throat affection is very severe. The exudation is very abundant. Deglutition is difficult or impossible, and upon attempting to swallow liquids they are returned through the nostrils. The tonsils are greatly enlarged. The inflammation may extend into the nares, and often there is an acrid discharge from the nostrils which excoriates the lips. In some cases the breath emits a fetid odor. The larynx may become inflamed though rarely. Oedema of

the glottis has been known to occur in the adult. The eye itself may be involved, so that destruction of one or both has occurred. The inflammation may also extend through the Eustachian canal into the internal ear and permanent deafness is often the result. The cutaneous eruption is apt to be slight and often absent in the anginose form. Hemorrhages from various sources occur in a few cases. Such cases with but few exceptions prove fatal.

In the irregular cases there may be a slight soreness of the throat only. The cutaneous eruption may be wanting entirely. Cases of sore throat often occur without any other symptoms manif-

ifesting themselves during the prevalence of the fever. This attack seems often to render the patient insusceptible to the disease afterward. The irregular form is often due to some existing disease, or to some disordered state of the system. Often when the fever occurs during an attack of enteritis, there is no eruption. Scarlet fever is most frequently rendered irregular by the co-existence of diseases of an inflammatory nature. When it occurs a second time it is more apt to be irregular than it was at first. Albuminuria and anasarca frequently occur in persons exposed to the fever without any symptoms having previously manifested themselves.

The malignant form occurs often in some epidemics while it is rare in others. The symptoms are severe from the beginning and the patient may succumb to the virulence of the poison before the usual symptoms manifest themselves. The rash in this form has generally a dusky hue. By passing the fingers over the eruption it disappears and returns slowly; an indication of the extreme sluggishness of the circulation. Delirium is usually present. Convulsions and coma often occur in the first three or four days. If the patient survives the onset of the disease, severe pharyngitis with inflammation of the glands around the angle of the jaw

shows itself. The temperature is very high, the thermometer placed in the axilla sometimes rising to 104°. The pulse is rapid from the commencement, being from 130 to 140 beats per minute. In children it may be still more frequent.

Complications are most frequent in the malignant forms, but may occur in any form of the disease. Convulsions are probably the most common and serious complication as regards the nervous system. They usually occur before the appearance of the rash. When they do occur however after the full development of the eruption, the case almost invariably proves fatal. The presence of the scarlatinous virus in the blood is

probably the most common cause of the convulsions.

Suppuration or gangrene may occur as an occasional result of severe pharyngitis. This is often serious but many cases recover.

Entero-colitis may precede or attend the fever. Diarrhoea often attends the vomiting in the beginning of the disease, but usually passes off during the first or second day.

Articular rheumatism sometimes occurs when the fever is about to decline. There is in most cases but little redness and swelling and fewer joints are affected than in acute primary rheumatism. Mild cases are more liable to it than those of a severe f...

Inflammation of the pericardium, pleura, or peritoneum sometimes exists as complications.

Sequelae.— Any of the complications mentioned above may exist as sequelae. Nephritis which may occur as a complication is a common and sometimes serious sequel. Its presence can readily be ascertained by examining the urine for albumen, fibrinous casts, or altered epithelial cells. The nephritis soon gives rise to anasarca. This is first observed upon the face or ankles. The nephritis often occurs when the patient is convalescing and in fact seems out of danger. The common exciting cause is exposure to cold.

It has been observed to occur most frequently after mild than severe forms of the fever, which may be due in part to the fact that less precaution has been observed to prevent the patient becoming chilled. Nephritis is also due to the direct action of the scarlatinous poison upon the kidneys; and the patient is rendered more liable to it during the desquamative stage by being exposed to cold thus checking the cutaneous transpiration and throwing an increased burden up on the kidneys.

Another frequent sequel is otorrhoea. If the inflammation be external to the drum membrane slight deafness may be the result but will in most cases soon

pass off. But in some instances where the internal ear is involved the drum membrane may be perforated, the ossicles detached, and permanent deafness may be the result.

Anatomical characters.— The eruption on the surface of the body and the inflammatory condition of the throat constitute the anatomical characters of this disease. Lesions which may be found after death in other situations are due to co-existing affections, or to complications. Some writers describe a condition of the mucous membrane of the alimentary canal analogous to that of the cutaneous surface, as existing in a large proportion of cases. The hyperaemic condition of the

kidneys should be considered rather as a complication than as belonging essentially to the disease.

Causation.- Scarlet fever may be communicated either by infection or inoculation. It is questionable whether it originates spontaneously; if it ever does, such cases are rare. Persons in attendance upon the sick may be the medium of communication. It may also be communicated by means of fomites. The scarlatinous virus may remain for weeks in the clothing or apartments of the person who has had the disease without any diminution in its power to spread the affection. The discharge from the ear or nostrils and the particles of exfolia-

ted epidermis may be the medium of communicating the malady long after the fever has ended.

The period of incubation varies. It is shorter though in scarlatina than in any of the other eruptive fevers. It is usually from three to eight days.

Scarlet fever occurs most frequently in children, and most frequently in those between the ages of three and ten years. It is very rare under the age of one year, and infants under three months of age may be considered safe from an attack. Adults, though exposed to the disease and having never contracted it in childhood seem to possess an immunity from the fever. Scarlatina usually

occurs but once in the same individual but a second attack is not unfrequent, and it has been seen three times in the same subject. It is said that the second or third attacks never prove fatal.

Diagnosis.— It is difficult to make a positive diagnosis when the case is seen early and before the eruption has made its appearance. Though if a child has been exposed to scarlet fever and a few days after has very high fever, rapid pulse rising to 110, 120, or more, and if there be vomiting, but little doubt may exist as to the presence of this disease. The nature of the affection is generally rendered apparent as soon as the eruption appears.

In a mild case when the eruption is slight scarlet fever may be confounded with roseola or erythema. The diagnosis may also be difficult when the cutaneous eruption is wanting and the local manifestations are confined to the throat. From roseola or erythema it may be diagnosticated by the greater intensity and persistence of the symptoms, by a greater amount of faucial and buccal inflammation, and by a more lasting eruption on the skin, than is present in these diseases. These affections have neither sequel, or complications as is apt to be the case with scarlet fever. The appearance of the tongue may serve to distinguish the

disease from each other.

Scarlet fever and measles were at one time considered identical, and in a few cases the differential diagnosis may be attended with some difficulty. In measles the period of invasion is longer, there is absence of pharyngitis in many instances, though if present it is slight, coryza and bronchitis are present. Scarlet fever and measles may occur at the same time, though rarely.

Prognosis.— The mortality of cases varies greatly in scarlet fever. It also varies in different epidemics. The prognosis will depend upon the nature of the case, whether it be sim-

fever and not accompanied by any complications, or whether it be malignant, and also on the strength of the patient. If, in an epidemic, the prevailing typhus be mild, the mortality may not be more than one in twelve, and the ratio may be even less; on the other hand, if the severe form prevail, not more than one in three or four may recover. Great elevation of temperature, rapid pulse, duskiness of the eruption, great drowsiness, and a severe affection of the throat, are symptoms which indicate an unfavorable termination.

As complications and sequels are apt to occur suddenly, in mild

as well as in severe forms, it would be best never to make an unconditional favorable prognosis. The patient should not be considered safe until two or three weeks have elapsed after the disappearance of the eruption.

The mortality of adults also is greater in proportion to the number affected than of children.

Treatment.— Mild cases of scarlet fever call for very little treatment. A mild aperient if the bowels be constipated and a simple diaphoretic may be all that is necessary. Exposure to cold either during the progress of the disease, or during convalescence, is to be avoided.

If there is restlessness, a dose of bromide of potassium with a mustard foot-bath will give relief. On recovery if the appetite remain poor as is sometimes the case longer, the preparations of iron especially, should be given.

In majority of cases will require more decided measures of treatment however. Cold affusions are recommended by Trousseau as an important part in the treatment. These are of special benefit in those cases where the nervous symptoms predominate. They also diminish the heat of the surface of the body and induce free perspiration. Public opinion is however averse to such treatment. Though, in those cases where

there is great heat and dryness of the skin, and nervous symptoms fully developed, there is no doubt of the beneficial effect of cold applications to the head, and sponging the face and arms.

Ablution is rarely required; on the contrary sustaining measures are indicated from the first.

In almost all cases of scarlet fever the carbonate of ammonia is one of the best remedies. It should be prescribed in combination with a tonic.

Pruritus of the skin is in some cases a source of extreme annoyance. Lard was first employed to allay this unpleasant symptom, but its

ider is apt to become offensive after it has been used for a day or two. In the place of lard there may be used a preparation of glycerin with rose water ointment, or glycerin with carbolic acid. Besides the local effect of these inunctions, they are said to diminish the temperature of the body, and rapidity of the pulse.

In malignant cases stimulants are necessary. Quinia is also very serviceable to diminish the frequency of the pulse and to reduce the temperature. If convulsions occur a hot-bath should be employed. The patient should seldom if ever be bled. Inhalations of chloroform will also

give relief. Compression of the carotid is recommended by Trousseau as of great benefit in arresting convulsions in this disease.

The pharyngitis demands attention in most cases. Chlorate of potassa has been recommended as a remedy of considerable value in these cases. In those old enough gargles of a solution of this agent with three or four drops of carbolic acid to the ounce should be employed.

As to external treatment, a thin slice of salt pork stitched to a piece of muslin should be placed over the throat and made to pass from ear to ear the cloth being fastened over

the voice. After remaining for some time, the surface begins to be reddened and an eruption appears upon the part covered by the pork. This application should be continued throughout the course of the fever, leaving it off occasionally for a day or two to prevent the parts from becoming too sore. Compresses soft wet with ice water may be applied. This is objectionable however on account of the constant wetting to which the patient is subjected. The use of tincture of iodine to the neck has been advised, especially in those cases where there is much glandular swelling.

Sometimes in children respiration

is interfered with by the collection of viscid mucus in the larynx, and around the epiglottis. Prompt interference is required in such cases to prevent the possibility of death by apnoea. The removal of this collection of mucus is effected by means of a swab, which may be dipped in a solution of chlorate of potassa and carbolic acid.

The patient should be given nutritious food, consisting of milk, animal broth, &c. Solid food is rarely taken. Refrigerant drinks should be allowed and are extremely grateful to the patient.

During convalescence the patient

is liable to be affected by changes of temperature, and by currents of air for two or three weeks succeeding the fever. Nephritis, or some of the other inflammatory diseases as have been mentioned, may be the result. Great care therefore is necessary with regard to the hygienic management of the case during recovery.

The nephritic affection which is so common a sequel of scarlet fever should always be watched for and the patient put to bed on its first appearance. Diaphoretics and purgatives should be employed as in any other case of acute albuminuria.

The otorrhoea attending upon an

attack of scarlet fever should always receive attention. If not treated it is apt to continue and may produce permanent impairment of hearing. To prevent this, the ear should be daily cleansed with warm water containing a mild astringent.

Prophylaxis.— Of late years it has been claimed that belladonna exercises a certain amount of influence in preventing this disease. A great difference of opinion however exists among good observers as to its efficacy. Still, as it may put the system in a condition to resist contagion, and as it will do no harm if administered properly, perhaps it had better be given.